3 Fundamental Ways to Route Scheduling

A detailed guide on scheduling routes in vending operations

Scheduling routes is the one activity that's considered very essential to a well-run vending operation. This is because it's the foundation for the biggest customer-facing activity – replenishment.

Scheduling is the foundation for the biggest customer-facing activity – replenishment!

If vending operators were to be rated on performance by their customers, one of the first criteria for evaluation would be how **frequently and efficiently** they service the machines. Ultimately asking themselves, are the machines stocked and do they have the right products? The answer to this would completely depend on the **quality of the scheduling mechanisms** that the vending operators employ.

The **quality and accuracy** of the **scheduling plan** used depends not only on the type of scheduling but also the scenario in question. This guide will help you navigate through your operations by describing the three fundamental ways of scheduling your routes and by providing guidance on when it's best to use one of the techniques or a combination of them based on certain geographic or location parameters.

#1 Static Scheduling

This is one of the most common types of scheduling that most operators use. It is a part of most **Vending Management Solution (VMS) platforms** in the industry and is recognized as **basic functionality** that all of them provide.

In this type of scheduling, the plan is more or less static. Below are the most commonly created types of plans:

Machines serviced on a **particular day of the week.**

Machines serviced based on **load balancing** within routes.

Machines serviced irrespective of inventory in them, for **customers who ask for service** on particular days of the week.

Best-Fit Scenarios
for Static Scheduling:

New accounts: If you've taken on a **new account** that's projected to grow, and if the account has been particularly difficult to bring on board, it would be best to use **static scheduling**, until you **stabilize operations** with the account. This is also the best bet since you don't have **historical demand patterns** that you can rely on to utilize a different type of scheduling.

Customer request: If the customer has switched over from a **competing vending operator** to you, citing **customer service** as the reason for choosing you, then setting more **frequent service trips** on a **static scheduling mode** until they gain the confidence in you, would be the best way forward.

New service offerings: At locations where you are attempting new solutions like **micro markets** or **fresh food machines**, static scheduling for an initial period will help the customer build **confidence in the new solution** you are providing them.

#2 Dynamic Scheduling:

This scheduling technique is **customized** to fit the criteria you set. This pulls up a projected schedule depending on **data values** and **business rules** you have set. The platform you use for scheduling would gather all that information, tweak the plan based on the constraints, and deliver a projected **Dynamic Schedule**. There are **four major criteria** that a **dynamic scheduling tool** would base its plan on and all machines that meet these criteria are included in the schedule:

Maximum number of days elapsed since last service: With this criterion, you set the upper limit for the number of allowable days between service dates and if the machine hits this number it is roped in for a service.

Maximum amount of cash allowed in machines: This number is derived from the maximum amount of cash that the **bill validator** can hold. This is done so you **don't lose sales** when the bill stacker gets full. All machines on the geography indicated by you, with the criteria of having hit the maximum amount of cash will be added for service.

Depletion limit: This is the base number that you set at a machine level, considering your **projected sales** and **safety stock limit.** The **forecasting feature** of the **scheduling tool** sets alerts on all machines that are projected to hit the **depletion limit** before the next visit and service alerts for those machines are then triggered.

#2 Dynamic Scheduling:

Sub-route: This is set for every route prior to running the scheduling feature. Sub-routing looks at the **geographic location** of a route that's being scheduled and adds to it all the **machines in the vicinity**. For example, all machines on the north end that will need a service soon, will get added to that sub-route to avoid you having to go to the north again in the next couple of days. **Rules** play a **pivotal role** in determining which sub-routes are added to service schedules.

Rules you can set fall into three categories:

1

Individual machines based on forecast:
All machines belonging to a sub-route that are projected to **run low on inventory** can be added to the schedule.

2

Location settings:
This could be a **trigger-based feature** within your software, where, once a machine in a location has been scheduled, then it would automatically **trigger all machines** at that location that might **need servicing**. Think of the machine being scheduled as the lead machine that pulls in other machines within the vicinity to d**ecrease "stop" costs.**

3

Sub-routes rules:
You can set rules that specify sub-routes that will be **mutually exclusive.** For example, when you are scheduling routes in the northern part of a geography, no machines from the southern part should get added to the schedule.

Best-Fit Scenarios
for Dynamic Scheduling:

If you've recently **acquired** a **vending operation**, and are unsure of the most **optimal service routines**, then **set geographic rules** and let dynamic scheduling make your life easier.

If there are locations that **frequently** call you to **replenish** the machines, and the fuel cost does not justify the number of units you might be replenishing, then setting the **depletion limit** accurately and running dynamic scheduling would help **reduce calls** and **maximize your ROI.**

If you've set up a **new distribution center** to service one territory and need help with **organizing sub-routes**, collecting data for **demand patterns**, and setting new **replenishment schedules**, then **dynamic scheduling** might be your best bet to achieve this.

#3 Flex

This type of s
optimal serv
Scheduling a
move differe
specifically u
specific asse
as the **one st**
machines, ar
make **baland**
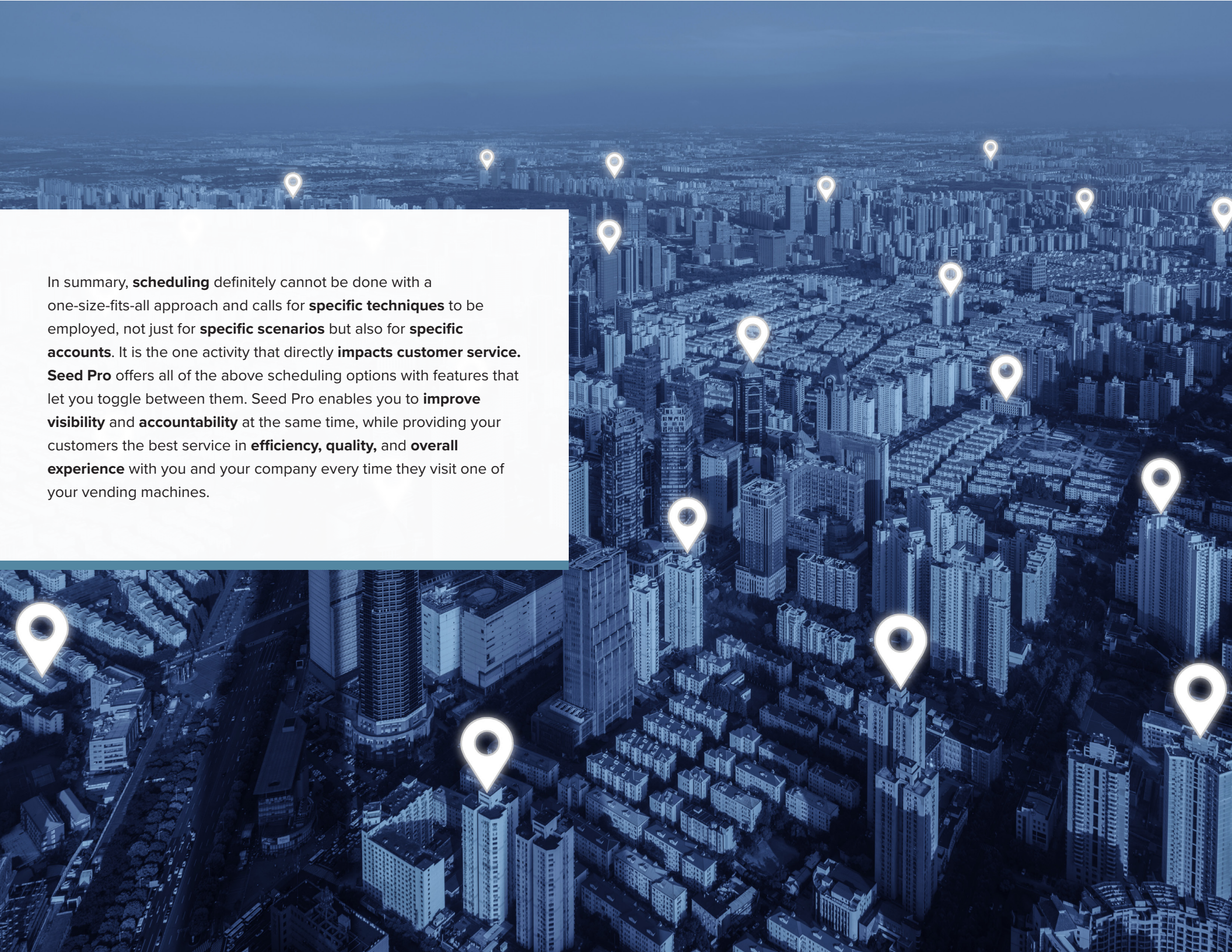
Best-Fit Scenarios for Flex Scheduling:

Weekends and/or holidays: This is a typical scenario that most operators face on a **regular basis**. More often than not, you may have more accounts on **diverse routes** with very **limited personnel** to do the job. For example, there might be just five accounts that need to be serviced but there is only one driver. This is when **flex scheduling** comes in handy. It **simplifies** the scheduling process by allowing you to schedule all the routes and machines and then merge them all into **one route schedule.**

Staff adjustments: You might have scheduled your route under a particular driver who called in sick the next day. You could **reassign all assets** on this route to another driver using **flex scheduling.**

Inaccurate pre-picks: When getting started with a location, there is always a chance that **pre-picks** were **generated inaccurately** and that led to **critically low inventory** in some machines. These machines could be **individually added** to any route to **get serviced** immediately.

In summary, **scheduling** definitely cannot be done with a one-size-fits-all approach and calls for **specific techniques** to be employed, not just for **specific scenarios** but also for **specific accounts**. It is the one activity that directly **impacts customer service**. **Seed Pro** offers all of the above scheduling options with features that let you toggle between them. Seed Pro enables you to **improve visibility** and **accountability** at the same time, while providing your customers the best service in **efficiency, quality,** and **overall experience** with you and your company every time they visit one of your vending machines.

About USA Technologies

USA Technologies, Inc. is a cashless payments and software services company that provides end-to-end technology solutions for the self-service retail market. With over one million connections worldwide, USAT is transforming the unattended retail community by offering one solution for payments processing, logistics, and back-office management solutions. The company's enterprise-wide platform is designed to increase consumer engagement and sales revenue through digital payments, digital advertising and customer loyalty programs, while providing retailers with control and visibility over their operations and their inventory. As a result, customers ranging from vending machine companies, to operators of micro-markets, gas and car charging stations, laundromats, metered parking terminals, kiosks, amusements and more, can run their businesses more proactively, predictably, and competitively.

Contact Us

800.633.0340
usatech.com

100 Deerfield Lane, Suite 300
Malvern, PA 19355