Routing Methods

What's Right for Your Business?

Your routing method can't be just standard or dynamic anymore. As businesses have grown and changed relative to market demands, so have the methods that get vehicles on the road.

How do you best balance customer demands with cost and efficiency? How do you build routes that are right for your business, but also right for your customers?

Read on to learn about seven routing methods — plus the pros and cons of each.

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Standard Routing

This method (also known as static or template routing), is used when it's important to have the same driver service the same customer(s). There is a specific route and sequence and when customers order, they automatically get placed on the route you assign them to. Preferred customers get the service level they desire, but it's harder to get a truck to capacity and save money.

Pros

- 1 to 1 relationship between driver and customers
- Creates internal consistency and sets customer expectation levels
- Gold customers can still be prioritized without maintaining lots of data

Cons

- More costly with a less efficient route plan
- Over time, as new customers are added, routes become less efficient
- Additional route balancing is often needed

Full Dynamic Routing

Centralizing all the information about a customer is the most important part of this method. It requires accurate information about the customer, such as address, priority, and equipment. Dynamic routing looks at business constraints such as capacity, time windows, customer and vehicle restrictions, and total time. Routes are balanced and created automatically based on these restrictions, but this means customers see different drivers from one day to the next and drivers don't master their territories.

Pros

- Fewer vehicles with better capacity usage
- Improved sequencing of stops
- Reduced miles
- Customers clustered by location
- Decreased run time
- Lower costs

Cons

- Customers lose consistency with drivers
- Drivers can be unfamiliar with territories
- More maintenance required on customer accounts

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Standard Route Fragments

This combines both standard and dynamic routing concepts. The main theory is that customers that you want to have 1 to 1 relationships with drivers are placed on the route first in their preferred order and then other customers are dynamically added to the route. Expanding upon this, you can also feather in stops into a route after, before, or in between the set sequence of customers.

Pros

- Assign drivers to gold customers
- Improved sequencing of stops
- Reduced miles
- Decreased run time
- Lower costs

Cons

- Not quite as cost efficient as dynamic routing

Preferred Route ID Routing

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Assign a customer to a specific route, but not a specific sequence. Stops are then dynamically sequenced on the route following dynamic routing rules. This allows for additional customer orders to be added to the route at the lowest cost while adhering to rules.

Pros

- Assign drivers to gold customers
- Improved sequencing of stops
- Fewer miles than standard routes
- More cost efficient than standard route fragments
- Decreased run time compared to standard routes

Cons

- Not as cost efficient as dynamic
- More maintenance required on gold customer accounts

Cell Routing

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Cells help blend the benefits of template or standard routing with some of the efficiencies of dynamic routing by geographically grouping customers together. When routes are created, the boundaries can be either hard or soft — meaning drivers or vehicles stay within the cells or allow cell boundaries to be crossed.

Pros

- Assign drivers to specific areas
- Improved sequencing of stops
- Reduced miles
- Decreased run time

Cons

- Not as cost efficient as dynamic routing
- Can create artificial boundaries

Zone Routing

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A zone is an identifier used to select similar delivery locations that are not necessarily geographically related to routes using dynamic routing. For example, customers that may need a specific type of equipment that can be routed using only that equipment type.

Pros

- Route customers with similar characteristics
- Assign drivers to a specific grouping of customers
- Improved sequencing of stops
- Reduced miles
- Decreased run time

Cons

- May reduce efficiencies/density grouping
- Not as efficient as full dynamic routing

Weekly Routing

Create routes for multiple days with one routing pass. This drives density and reduces cost when orders have a range of times they can be delivered intermingled with orders that have exact delivery dates. This is used in conjunction with full dynamic routing.

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Pros

- Creates density
- Lowers costs
- Eliminates single, far-out runs
- Reduced mileage

SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY
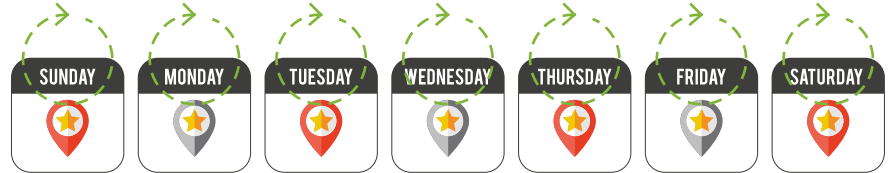
Cons

- More information required per order

Cost Impact Comparison

COST IMPACT $ - $$$$	
$	Cell Routing
$ - $$	Standard Routing
$ - $$	Zone Routing
$$	Standard Route Fragments
$$	Preferred Route ID Routing
$$$$	Full Dynamic Routing
$$$$	Weekly Routing

Customer Service and Efficiency Impact Comparison

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👍 Benefits	Standard Routing	Full Dynamic Routing	Standard Route Fragments	Preferred Route ID Routing	Cell Routing	Zone Routing	Weekly Routing
Customer Service Benefits							
1 to 1 relationship between customer and driver	X						
Create internal consistency and set customer expectation levels	X		X	X			
Assign drivers to gold customers			X	X	X	X	
Efficiency Benefits							
Assign drivers to specific areas	X		X	X	X		
Assign drivers to a specific grouping of customers	X		X	X		X	
Prioritize gold customers without maintaining lots of data	X		X	X			
Improved sequencing of stops		X	X	X	X	X	X
Reduction in mileage		X	X	X	X	X	X
Decreased run time		X	X	X	X	X	X
Customers clustered by location		X			X	X	X
Route customers with similar characteristics		X				X	
Achieve route density		X					X
Fewer vehicles with better capacity usage		X					X
Eliminate single far-out runs							X

👎 Limitations	Standard Routing	Full Dynamic Routing	Standard Route Fragments	Preferred Route ID Routing	Cell Routing	Zone Routing	Weekly Routing
Customer Service Impact							
Customer loses consistency with drivers		X					
Drivers unfamiliar with territories		X					
Efficiency Impact							
Additional route balancing often needed	X				X	X	
As new customers are added, routes become less efficient	X		X	X			
More maintenance required on customer accounts		X		X			X
Can create artificial boundaries					X	X	
May reduce density grouping						X	
More information required per order							X

To learn how Omnitracs' routing solutions can help businesses of all needs, visit www.omnitracs.com/solutions/planning-delivery.