MarketMotion

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.

omnitracs
roadnet strategic partner

1 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 specifc 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 prioritised 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

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Centralising 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 kilometres
- 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 frst 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 kilometres
- 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 kilometres 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

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Cell Routing

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 specifc areas
- Improved sequencing of stops
- Reduced kilometres
- Decreased run time

Cons

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

Zone Routing

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

Pros

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

Cons

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

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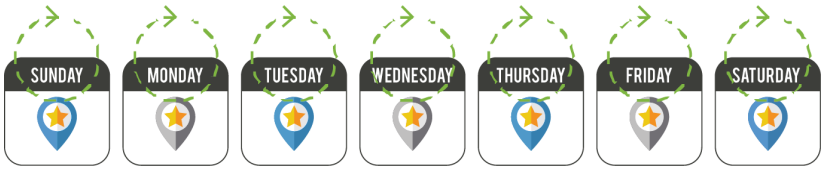
Weekly Routing

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.

Pros

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



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

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 level	X		X	X			
Assign drivers to gold customers			X	X	X	X	
Asign drivers to specific areas	X		X	X	X		
Asign drivers to a specific grouping of customers	X		X	X		X	
Prioritise gold customers without maintaining lots of data	X		X	X			
Efficiency Benefits							
Improved sequencing of stops		X	X	X	X	X	X
Reduction in kilometres		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							
Customers loses consistency with drivers		X					
Drivers unfamiliar with territories		X					
Additional route balancing often needed	X				X	X	
Efficiency Impact							
As new customers are added, routes become less efficient	X		X	X			
More maintenance required on customers accounts		X		X			X
Can create artificial boundaries					X	X	
May reduce density grouping						X	
More information required per order							X

To learn which routing solution can help yout business, visit:
www.marketmotion.com.au/our-technology/route-planning

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