

# Service Type Compliance Metric Deep Dive SOP

## Purpose

The purpose of this metric deep dive is to provide a supporting document for sites to be able to plan D+1 service type; sense check service type compliance (STC) to prevent any physical cubeout packages, which negatively impacts DPPH on D0; and deep dive STC D-1.

The risks associated with STC fall into two categories: over-utilization and under-utilization.

- **Overutilization** refers to instances where the cubic capacity of the virtual service type exceeds the cubic capacity of the physical service type (an XLV route placed in an SP vehicle). The risk here is that we are physically leaving packages behind and, as a result, are forced to combat this defect by incurring additional costs through adhoc sorts, additional flex capacity, and rescue routes. Additionally, this creates a potential impact on driver experience and driver safety as we attempt to stack packages unsafely, stack them in a way that discourages ideal delivery scenarios, place packages in the front seat, etc.
- **Underutilization** refers to instances where the cubic capacity of the virtual service type is beneath the physical service type (an SP route placed inside an XLV vehicle). The risk here is that we are failing to utilize available cubic capacity (an SP route with cube headroom being placed in an XLV vehicle), failing to accurately capture our true available capacity, and feeding incorrect inputs into our routing tools (a DA has difficulty placing an SP route in an SP vehicle, so the DSP allows them to use an SP-L vehicle in its place, thus masking any potential routing problem and solution).

## Scope

This SOP is intended for the Operations team to ensure that the DSPs are STC compliant as part of daily dispatch process and following their contractual agreement in regards to STC.

## Why Is This Important?

STC impacts the business in multiple ways:

- High STC improves cubeout headroom and physical cubeout, ultimately making our routes more efficient and cost-efficient.
- **Safety** - Ensuring vans are not getting more cubic volume then what they were supposed to be getting based on service type (ST).
- **DA experience** – Is this really setting up drivers for the correct route size? DSPs are artificially lowering their workload and thus DA expectation on what a true route size looks like.
- **Cost/Flex** - Overutilization and underutilization of van cubic capacity, which cause cubeouts, or we can take on more volume in the stations. Flex generation could occur to cover virtual gaps in supposed capacity gaps.
- **Capacity/Planning** - Daily and weekly OTR capacity accuracy, as STP (short-term planning), MTP (mid-term planning), and LRP (long-range planning) teams all use STs to help plan network volume at the station and network levels. Not having the correct inputs could artificially raise or lower true OTR Capacity.
- **Preferred RGUs** - The system pushes and pulls DSPs into the RGUs of the DSPs who have poor STC, as you need more coverage to cover same volume. This pulls surrounding DSPs outside of their preferred areas, thereby lowering affinity and DPPH.

## Key Definitions

- **Dispatch Failure Leakage** - Dispatch Failure Leakage is derived from the sum of all packages not dispatched on Day 0 having been planned on RTW. Examples include physical cubeouts due to incorrect van size or van loading SOP not being followed.
- **Service Type Compliance (STC)** – STC shows the level of accuracy between the planned route ST and the actual executed vehicle type. The expectation is for DSP to bring in the same distribution of van sizes as they planned. STC Pass or fail = Route Service type Generated  $\neq$  VIN ST of Van Route is executed.
- **%ST Non-compliant - Overutilization**: Percentage of routes where the planned route was large but was executed by a small vehicle.
- **%ST Non-compliant - Underutilization**: Percentage of routes where the planned route was small but was executed by a large vehicle.

## Measurement Methodologies

Metric	Standard	Definition	Formula	Historical Performance Link	Hourly Performance Link
Service Type Compliance	NA - 95% EU – 90%	Service Type Compliance (STC) is a metric meant to show the level of accuracy between the planned route service type (ST) and the actual executed vehicle type. The expectation is for DSP to bring in the same distribution of van sizes as they planned.  More information available on the <a href="#">STC Wiki</a> .	Planned route service type vs. Actual route executed vehicle type  STC pass or fail = Route ST Generated $\neq$ VIN ST of van that route is executed on	<a href="#">PerfectMile &gt; NA AMZL Business Review Dashboard</a>	N/A
%ST Non-compliant - Overutilization	Less than 3.5%	Measures % of vehicles that were over utilized	% of routes where the planned route was large but was executed by a small vehicle	N/A	N/A

%ST Non-compliant - Underutilization	Less than 1.5%	Measures % of vehicles that were under utilized	% of routes where the planned route was small but was executed by a large vehicle	N/A	N/A
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## Roles and Responsibilities

Role	Responsible, Accountable, Consulted, Informed (RACI)	Responsibility
DA Assist	R	Responsible for escalating cubeout or STC issues to Loadout manager.
Loadout Manager	R	Responsible to verify that the correct service type attends loadout and Day of Ops plan is given to DSPs. Deepdive any STC issues and escalate to the OTR L6 and DSP
Delivery Operation Manager	R,A	Check DSP OTR capacity for correct inputs to ensure correct capacity and inputs into routing. Inform business coaches of any ongoing issues for support and escalate any widespread issues
ACESTeam	R, C, I	Support in any DSP miss-use, any D0 issues including cubeout issues
DSP Legal	I	Informed of any fraud (which includes rostering smaller STs on purpose than what vehicle is mapped as, since this virtually lowers OTR capacity.)
Business Coach	C,I	Supporting DSPs with capacity planning and service type compliance if needed Being informed of any STC issues or misuse, and support site with escalations when needed
DSP	R,A	- Communicate any capacity adjustments to the delivery station after the ECP run - Enter accurate capacity information in the scheduling system
Fleet & LMDX	I	Informed of any data errors in the STC metric.

## Safety, Tools, Equipment, Software Needed

- [Siphon](#)
- [Service Type Compliance Quicksight](#)
- [Service Type Compliance \(STC\) Planning SOP](#)
- [DPPH Dashboard](#)
- [Routing Tools](#)
- [Auto Assign](#)
- [STC Wiki \(WIP\)](#)
- [Cubeout SOP](#)
- [WW DPPH WIKI](#)
- [STC Logic Error SIM](#)
- [STC Deep Dive Request SIM](#)
- [Bag aware planning WIKI](#)
- [Example STC SIMs](#)
- [WW Fleet Flash QuickSight](#)

## Process Map



Process Map

## Process Step(s)

## 1. Navigate to PerfectMile

As part of deep diving DPPH for STC deep dive metrics, Ops/ ACES to visit the [AMZL Business Review PerfectMile](#) in the Quality tab, lines 14.1-14.5.

## Image(s)

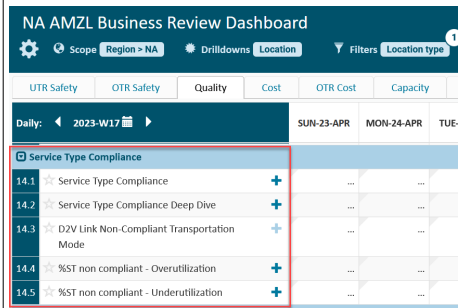


Figure 1: PerfectMile > NA AMZL Business Review Dashboard > Quality > Service Type Compliance

## 2. Visit the STC Deep Dive Line 14.2.

1. Click the “+” icon to drill down Line 14.2 Service Type Compliance Deep Dive by location/ DSP.
2. Click “Export as .xls.”

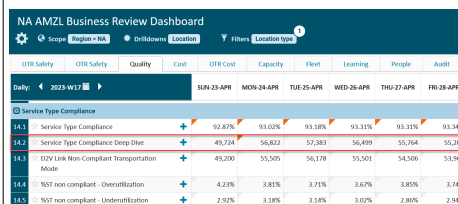


Figure 2: Line 14.2 – Service Type Compliance Deep Dive & Export

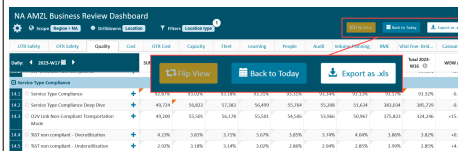


Figure 3: Export as .xls

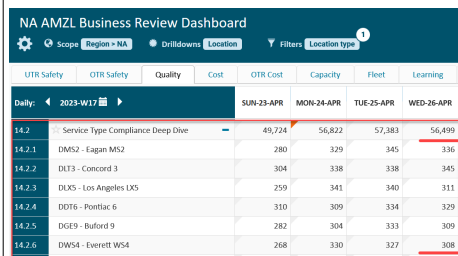


Figure 4: STC by Location/DSP

## 3. Review Data

1. Downloaded data will include DSP, Planned Service Type, Actual Service Type, Route ID, etc.
2. Utilize pivot tables and filters to understand data.
3. To see non-compliant service types, review column O for 0.
4. Use column Q to understand why it was not compliant from a planning or execution miss.

**Tip:** Sort data by Date, Planned ST, and VIN and color code to highlight misses/day.

Figure 5: Data Download

A	B	C	D	E	F	G	H	I	J	K
Row Labels	Sum of compliant	Count of route_id								
DOM2	1165	1488								
AKTE	165	145								
BLK	186	203								
BLPT	24	120								
CSDL	71	71								
KKOR	78	78								
MAZE	260	275								
MDIX	119	117								
PMLS	224	316								
POLR	18	63								
Grand Total	1165	1488								

Figure 6: Pivot Table

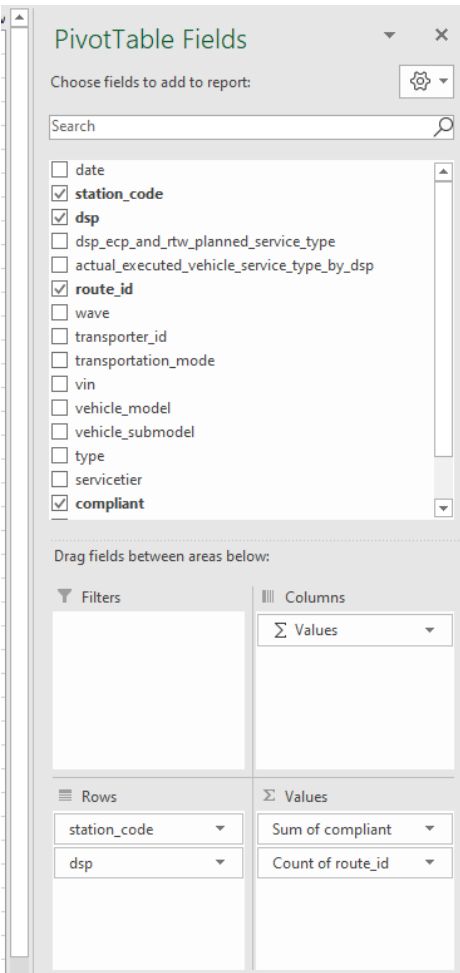


Figure 7: Pivot Table Fields

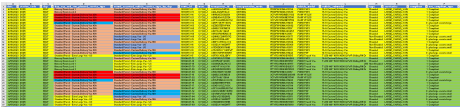


Figure 8: Data Color Coding

## How to deep dive with the Service type compliance Quicksight

### [Service type compliance- V2](#)

- Go to the cycle capacity optimization tabs – Make sure that the last refresh date is the most up to date one
- This Chart shows Cycle Service Type Scheduling Opportunities, and DSP Capacity Entry vs Active Fleet Opportunities

Active fleet	A DSPs active fleet counts from Fleet Portal (Kitt). Active Fleet Qualifications-AMZL Qualified and Healthy Vehicle Status
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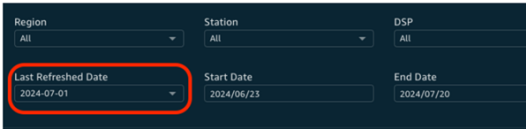


Figure 9- Last refresh date

Total capacity input above fleet	Flag for when DSPs Total Capacity Input Entries > Total Active Fleet Count
ST Capacity Input Above Fleet	Flag for when Capacity Inputs for a Service Type across all cycles > Service Types Active Fleet Count
Current input	Current Capacity Entries by Service Type in DSPs Capacity Entry Portal in Scheduling User Interface (SUI)
Proposed Input	AMZL Capacity Input Adjustment Proposals. Proposed Inputs are generated using the logic below for optimal Cube and SPR Proposed Input Plan. (C1->C2->C0) (Largest to Smallest Service types) (Total Current Inputs = Total Proposed Inputs)
Proposed vs Current Delta	The capacity input adjustments that DSPs could make to Optimize Cube/SPR on each Cycle

AMZL *can not force or imply that we can force* DSPs to update their capacity inputs. We can influence them to adjust their inputs with Data and escalations to the BC team. If a DSPs decides to not update their inputs that is their choice. (Explain to the DSP the why behind it, why should they care about it)

· DSPs should enter their capacity following the priority order as estipulate by the Vehicle Utilization and Operational Readiness- For questions reach out to the Regional Fleet Manager (RFM)

- There are 3 main metrics that this can be broken into
  - o ST Capacity Inputs above Active Fleet
  - o Large Vehicle Planned Underutilization
  - o Cycle Service Type Optimization. In the Proposed vs Current Delta Column

§ Blue flag indicates an opportunity to increase Service Type Capacity Inputs

§ Yellow flag that indicates an opportunity to decrease Service Type Capacity inputs.

1) ST Capacity Inputs above active fleet

DSPs rostering Service Type Capacity Inputs above their Active Fleet. This metric is important to fix to reduce potential for physical cube outs or virtual cube outs

Physical cubes outs are a huge pain point for OTD and virtual cube outs (Cube Out Headroom) can drive an increase in routes needed from DSPs or the potential that Flex is needed to solve capacity.

DSP Service Type Capacity Optimization : 2024-10-29 through 2024-11-09						
CYCLE_1						
Service Type	Active Fleet	Total Capacity Input Above Fleet	ST Capacity Input Above Fleet	Current Input	Proposed Input	Proposed vs Current Delta
Standard Parcel - Extra Large Van	25	2	4	29	25	-4
Standard Parcel - Large Van	11	2	0	9	11	2
Standard Parcel - Extra Large Van	45	0	0	40	40	0
Standard Parcel - Large Van	7	0	0	0	0	0
Standard Parcel	1	0	0	0	0	0
Standard Parcel - Extra Large Van	25	0	4	29	25	-4
Standard Parcel - Large Van	11	0	0	6	10	4
Standard Parcel - Extra Large Van	45	0	0	35	35	0
Standard Parcel - Large Van	7	0	0	0	0	0
Standard Parcel	1	0	0	0	0	0
Standard Parcel - Extra Large Van	25	0	4	30	26	-4

Figure 10- Dashboard

CYCLE_1			
Current Input	Proposed Input	Proposed vs Current Delta	
29	25	-4	
9	11	2	
40	40	0	
0	0	0	
0	0	0	
35	35	0	
6	10	4	
30	26	-4	

Figure 11- Proposed v Current Delta flags

CYCLE_1									
Service Type	Active Fleet	Total Capacity Input Above Fleet	ST Capacity Input Above Fleet	Current Input	Proposed Input	Proposed vs Current Delta	Current Input	Proposed Input	Proposed vs Current Delta
Standard Parcel - Custom Delivery Van 144h	1	0	0	1	1	0	1	1	0
Standard Parcel - Custom Delivery Van 120h	11	0	0	10	11	1	10	11	1
Standard Parcel - Extra Large Van	17	0	0	4	17	13	4	17	13
Standard Parcel - Large Van	11	0	1	0	12	12	0	12	12
Standard Parcel - Small Van	0	0	11	3	0	-3	4	0	-4

Figure 12: Example 1

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Note: Total Capacity input Above Active fleet is a flag for potential risk but not necessarily a capacity play. To mitigate risk Station Leaders should understand DSPs Fleet Plan. Are they renting vehicles to match capacity, are they waiting on vehicles to arrive from AMZL, or will they cancel the routes to ensure that on the D+1 ECP Run they do not get scheduled a route they can't run.

In the example figure: Example 1, C1 we would ask the DSP increase their XL vans by 4 on c1 and large vans by 3 on C0 and 0 out all Small vans rostered, and increase by 13 Extra large vans and 1 CDV 12FT.

2) DSPs rostering more Total Capacity Inputs than what is in their Active Fleet

When Total Capacity input Above Fleet Flags its a data point for conversation about solve dates. Is the DSPs going to pick more vehicles?, are they going fix a couple vehicles? This is more concern closer to the OFD Date than Wk+3 as DSPs fleet is fluid, especially during Peak. This doesn't mean this data point should not be brought up and addressed with the DSP.

3) DSPs not Planning Large Vehicles and Cycle Optimization

This can be broken down into several parts:

- Large Vehicles used on less dense cycles, Small Vehicle Underutilization (when DSPs roster smaller service types despite having a larger small service type available

Example 2: DSP has 8 Small vans and 8 XL and rosters 8 Small on C1 and 0 XL on C1) – See Figure – Example 2

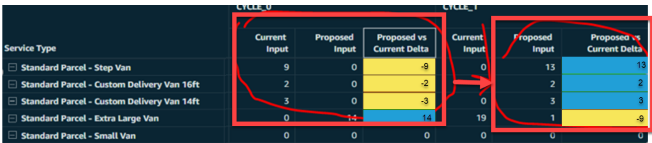


Figure 13: Example 2

Metric: Service Type Planning/Actual Miss

Explanation: Deep dive analysis shows that the DSP has a STC miss on a given OFD.

Process Steps	Images
<p><b>Root Cause 1:</b></p> <p>Service Type Miss Because of Vehicle Grounding</p> <p><b>Action(s):</b></p> <ol style="list-style-type: none"><li>1. Review the importance of accurate DVIC performance. DSP should to ensure vehicles are being inspected prior to use. Inspections should not take less than 90 seconds.</li><li>2. Work with DSP to ensure that they are cycling through vehicles regularly and <b>accounting for vehicles</b> due for service when entering max capacities.</li></ol>	

<p><b>Root Cause 2:</b> Service Type Execution Miss</p> <p><b>Action(s):</b></p> <ol style="list-style-type: none"><li>1. Review STC D-1 to Out For Delivery (OFD) data to identify potential compliance issues. Share this data with the DSP, highlighting any mismatches between planned and executed routes.</li><li>2. Discuss with the DSP the benefits of proactively registering additional rental vehicles up to their Approved Fleet Size (AFS) for the coming month. Provide relevant forecasting data to support their planning process. This allows the DSP to secure the appropriate-sized rental vehicles in advance, rather than having to rely on last-minute third-party vendors who may not be able to provide the correct VIN and service type details in time. By planning and pre-registering rental vehicles, the DSP can better ensure the executed vehicle size matches the planned service type, limiting the risk of STC misses.</li></ol> <p>If the STC miss is due to intentional non-compliance, escalate the issue to Senior Operations, Field ACES, and the Business Coach Team to address.</p>	
<p><b>Root Cause 3:</b> Service Type Planning Miss (VIN Logic Error)</p> <p><b>Action(s):</b></p> <p>Any VIN not found or VIN that has any logic error can be raised by submitting a <a href="#">trouble ticket</a> to LMDX.</p> <p>To raise the <i>Simple Issue Manager</i> (SIM), you need the following information:</p> <ol style="list-style-type: none"><li>1. Photo of the VIN plate</li><li>2. Existing service type</li><li>3. Proposed service type</li><li>4. Photo of vehicle</li><li>5. Photo of how the vehicle is loaded to confirm correct loading SOP was followed</li></ol> <p>For more information please visit the <a href="#">Service Type Compliance (STC) Planning SOP</a></p>	

## Service Type Compliance Standard Work Tips for Stand-Up Meetings (SUMs)

- Dispatch
  - Loadout manager distributing day of Ops breakdown to the DSPs, Yard Marshall, and DA Assistants with STC van assignments helps to reduce STC misses that can lead to physical or virtual cubeouts. (DSP can also look under Cortex for planned ST.)