

Multi Node Fulfillment Strategy at Specialty Retailer

The company needed a cost-effective fulfillment strategy for animatronics product category and all products sold on Amazon sales channel to reduce costs, improve customer delivery speed, and optimize inventory allocation across the network as part of Everything to Everywhere (E2) initiative.

Evaluate the existing fulfillment strategy and develop a new approach that reduces costs, eliminates inefficiencies, and accelerates lead times

Stakeholder Alignment:

- Initiated cross-functional collaboration by clearly defining the project goals, scope, and timelines.
- Facilitated regular meetings to gather input, align on key assumptions & ensure transparency across departments.

Rigorous Data Analysis / Data-Driven Decision-Making:

- Evaluated 11 fulfillment options, each with distinct cost structures and implications for speed to market.
- Conducted a detailed cost analysis, breaking down key cost elements such as inbound logistics, outbound shipping, handling, and storage expenses.
- Collaborated with the Finance team to develop a robust baseline comparison for current fulfillment practices versus potential alternatives.
- Used data and scenario modeling / sensitivity analysis to validate or disprove each option.
- Highlighted trade-offs and financial impacts, enabling leadership to make informed decisions.

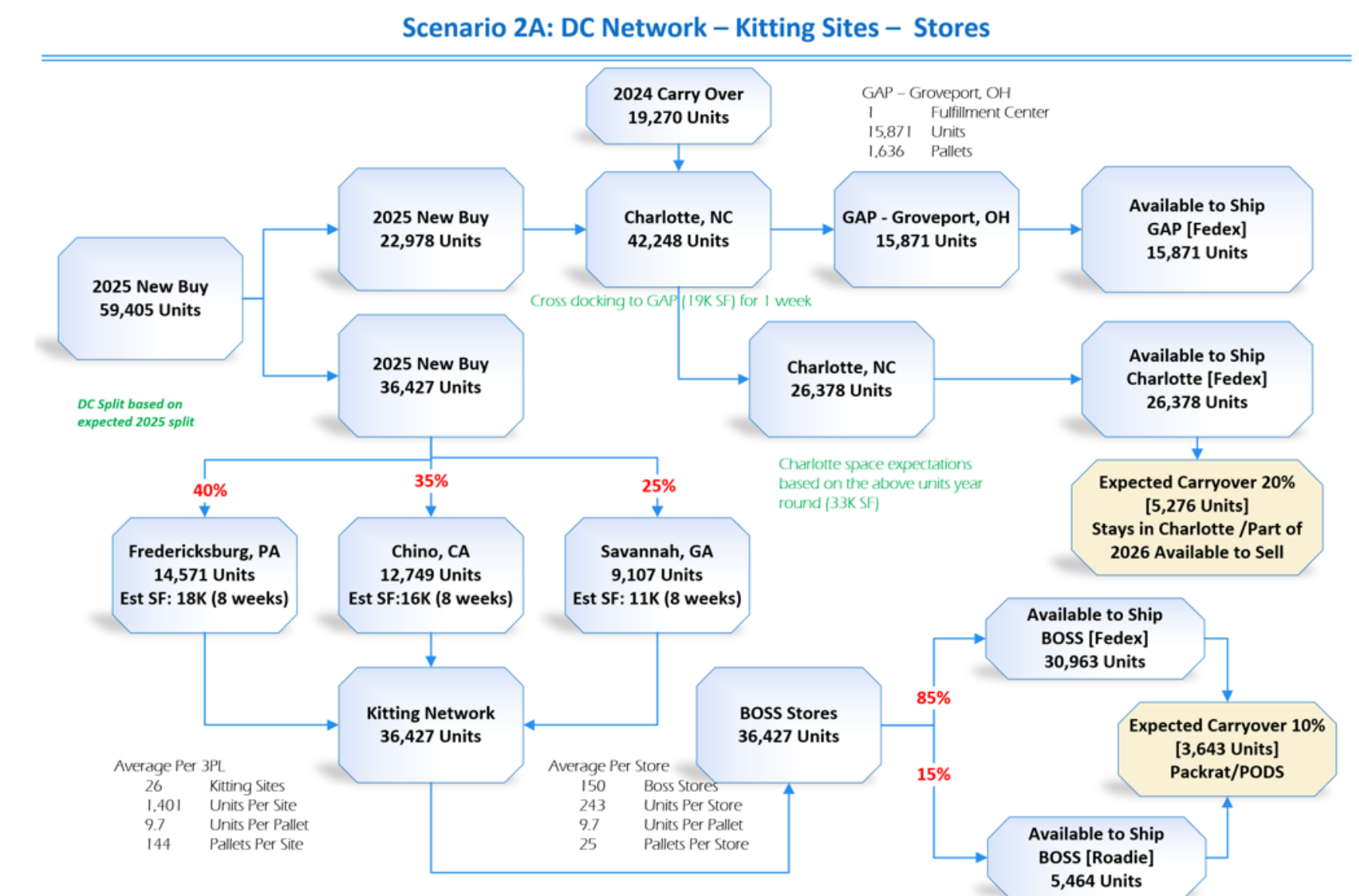
Solution Identification:

- Narrowed to 2 solutions that provided the best balance of costs, operational feasibility, & customer experience.
- Disproved less viable options through thorough analysis and stakeholder agreement.

2025

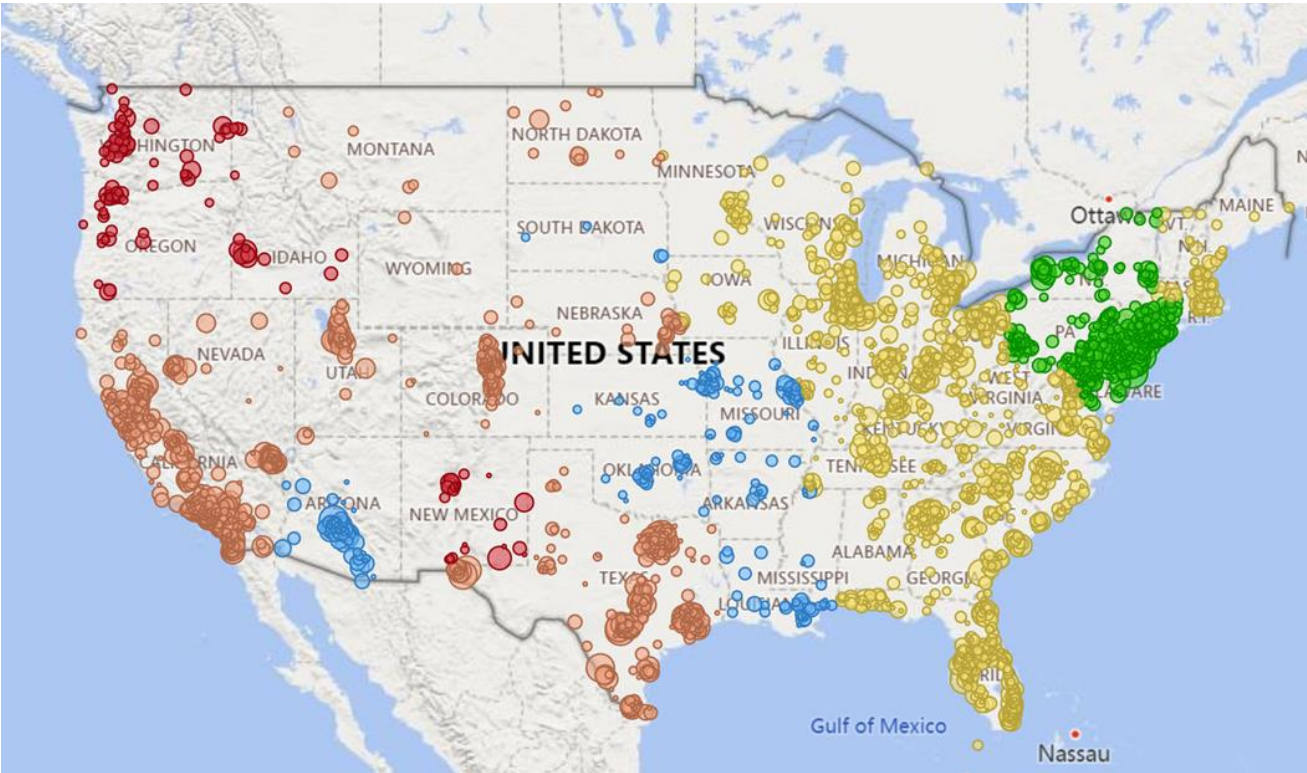
Business Outcomes

- ~\$2.6M in annual cost savings
- Accelerated lead times by 3 weeks
- Eliminated \$2.5mm in holdback inventory
- Reduced DC space needs by 75%

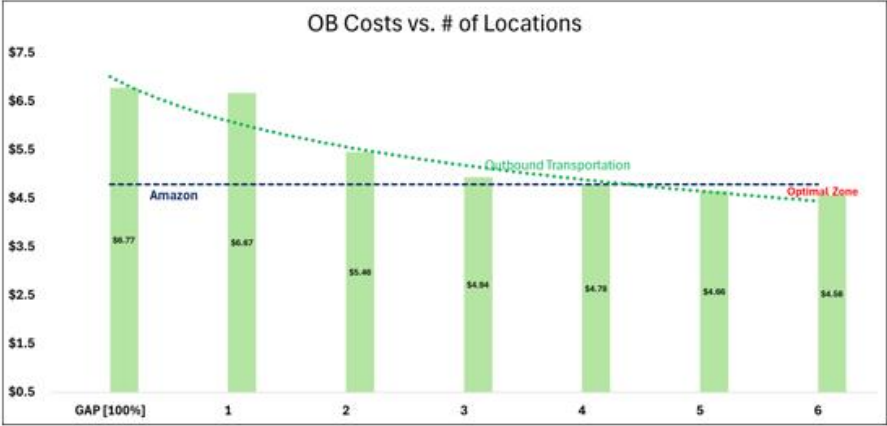
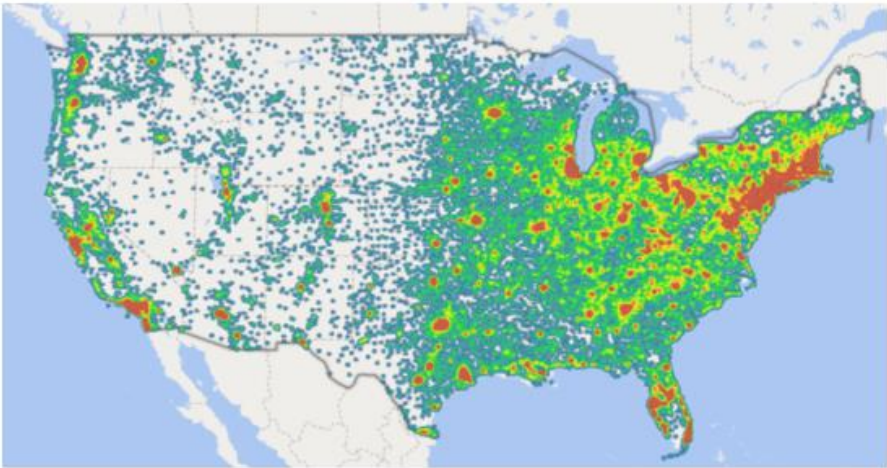
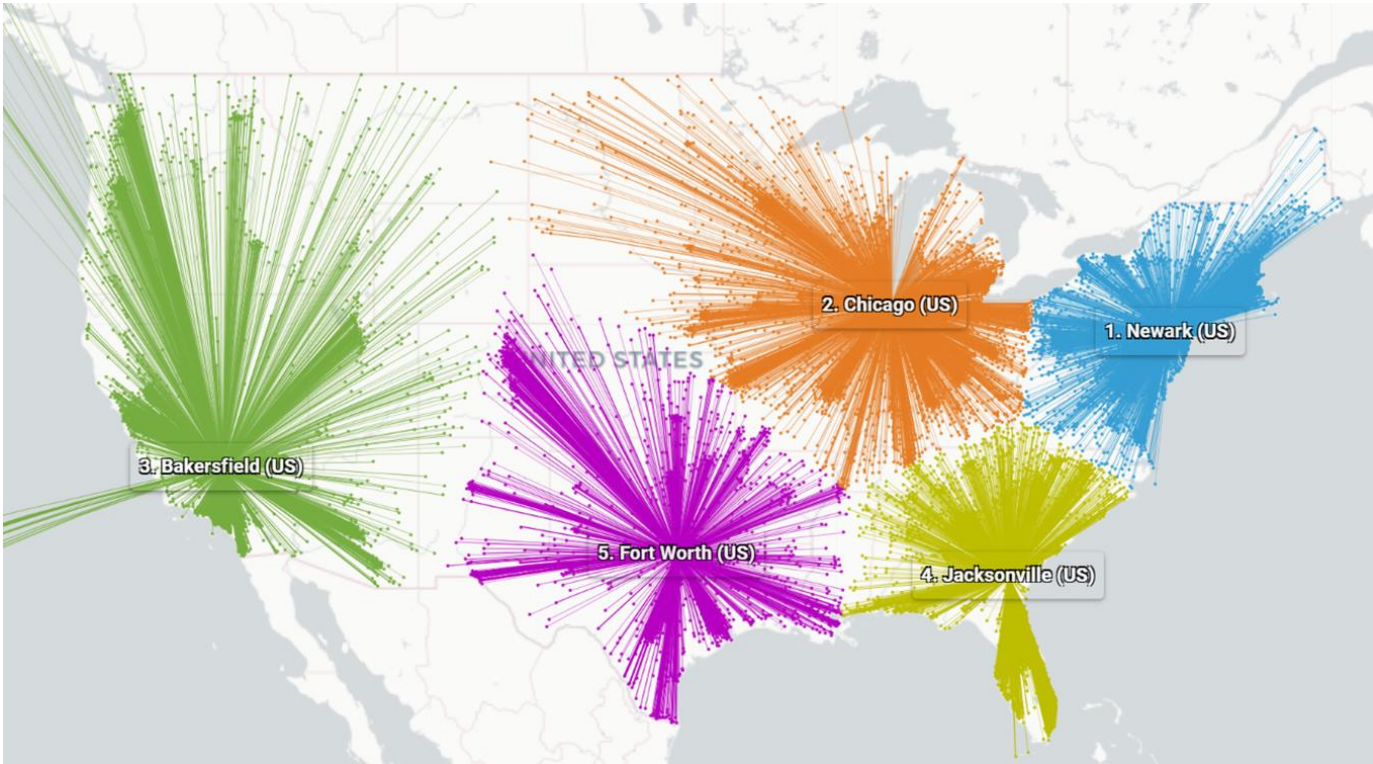


Multi Node Fulfillment Strategy at Specialty Retailer (cont'd)

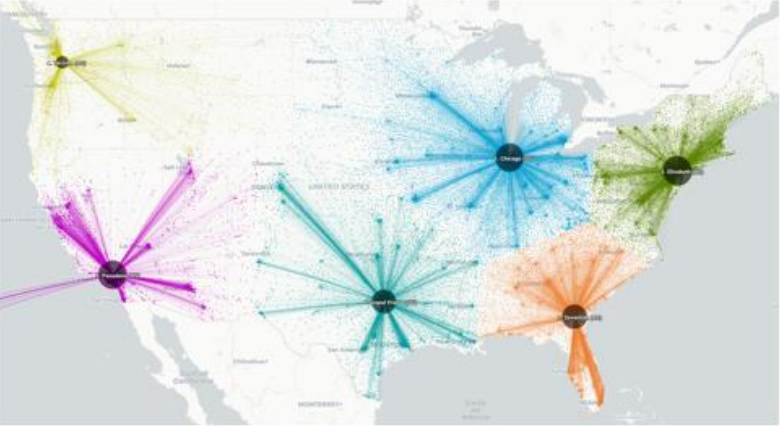
	Internal DC Network			Store Network		Kitting Network	GAP	Hybrid/BOSS
2023	CLT 2 [As Is]	Existing 3 DC		BOPIS	BOSS			
Animatronics	CLT 2 [As Is]	Existing 3 DC		BOPIS	BOSS	6 Kitting Sites	Gap	Hybrid/BOSS
Inbound to DC	575,840	535,651	531,766	531,766	531,766	531,766	535,651	535,651
Outbound to Customers	1,554,598	1,560,566	1,439,737	294,572	1,353,581	1,382,047	1,854,306	1,282,726
Total Transportation Costs	2,130,438	2,096,217	1,971,504	826,338	1,885,347	1,913,813	2,389,957	1,818,377
Storage Costs	510,587	432,529	581,891	253,529	253,529	253,529	959,680	222,196
Handling Costs	621,949	188,866	247,517	402,040	402,040	366,155	742,022	199,907
Carryover Costs	0	0	0	67,746	67,746	67,746	0	0
Total Fulfillment Costs	1,132,536	621,395	829,408	655,568	655,568	619,683	1,701,702	422,104
Total Costs	3,262,974	2,717,613	2,800,912	1,481,907	2,540,916	2,533,497	4,091,659	2,240,481
Shipping Revenue	(1,286,980)	(1,286,980)	(1,286,980)	0	(1,286,980)	(1,286,980)	(1,286,980)	(1,286,980)
Net Costs (Total - Ship Rev)	1,975,994	1,430,633	1,513,932	1,481,907	1,253,936	1,246,517	2,804,679	953,501
All In Cost per Unit (incl. One Time)	17.3%	12.6%	13.3%	13.0%	11.0%	11.2%	25.2%	8.4%



2025



2023 Amazon Fulfillment	\$4,788,395	<- Includes Fulfillment	
2023 Amazon (Incl Fulfillment)	\$4,788,395	OB Freight	Incr Savings
GAP OH [100%]	\$6,774,306		% Savings
Optimal 1 -LOC	\$6,667,332	\$106,973	
Optimal 2 -LOC	\$5,455,322	\$1,212,011	22%
Optimal 3 -LOC	\$4,938,173	\$517,149	35%
Optimal 4 -LOC	\$4,782,694	\$155,479	39%
Optimal 5 -LOC	\$4,655,661	\$127,033	43%
Optimal 6 -LOC	\$4,555,044	\$100,617	46%



	Scenario 2A : DC Network – Kitting Sites - Stores				
	2025	2026	2027	2028	2029
Inbound to DC	900,325	949,966	950,045	959,260	977,967
Outbound to Customers	2,333,208	2,338,592	2,362,793	2,410,702	2,483,983
OB - DC to Customers	946,947	952,373	964,206	985,785	1,017,850
OB - DC to 3PL Kitting	53,657	53,214	53,115	53,526	54,463
OB - 3PL Kitting to Stores	60,651	60,150	60,039	60,503	61,563
OB - Stores to Customers	974,912	977,407	986,419	1,005,289	1,034,677
OB - CLT - GAP	89,234	87,552	87,389	88,065	89,608
OB - GAP to Customers	207,808	207,895	211,625	217,534	225,823
Total Transportation Costs	3,233,533	3,288,558	3,312,838	3,369,962	3,461,951
Storage Costs	280,205	277,704	277,187	279,331	284,224
at DC	211,040	209,276	208,886	210,502	214,189
at 3PL Kitting	53,547	53,106	53,007	53,417	54,353
at GAP	15,617	15,323	15,294	15,412	15,682
Handling Costs	344,821	347,719	351,787	359,124	369,957
at DC	117,839	120,789	122,856	126,188	130,896
at 3PL Kitting	83,053	82,368	82,215	82,851	84,302
at Stores	50,472	51,557	53,005	55,018	57,661
at GAP	66,673	65,417	65,295	65,800	66,953
Mgmt. Overhead	26,784	27,588	28,415	29,268	30,146
Total Fulfillment Costs	625,026	625,423	628,974	638,456	654,181
Total Costs	3,858,559	3,913,981	3,941,813	4,008,418	4,116,131
Savings [CLT vs. Hybrid]	416,129	422,630	431,909	445,461	463,714