

# Summary of the DMAIC Example

## Define

Our goal is to improve the existing warehouse network so that we can promise each customer a two day delivery lead time. In order to achieve that, we should locate each warehouse within 500 miles of our ten target destinations.

## Measure

The current logistics network has two locations that are further than 500 miles from the customer locations:

- Los Angeles
- Miami



## Analyze

We consider several warehouse locations to deliver to our **Los Angeles**:

Warehouse Address	Customer Address
6835 W. Buckeye Rd. Phoenix, AZ, 85043	200 N Spring St, Los Angeles, CA 90012
16920 W. Commerce Dr. Goodyear, AZ, 85338	200 N Spring St, Los Angeles, CA 90012
4750 W. Mohave St. Phoenix, AZ, 85043	200 N Spring St, Los Angeles, CA 90012
800 N. 75th Ave Phoenix, AZ, 85043	200 N Spring St, Los Angeles, CA 90012
5050 W. Mohave St. Phoenix, AZ 85043	200 N Spring St, Los Angeles, CA 90012
1910 E Central Ave. San Bernadino, CA, 92408	200 N Spring St, Los Angeles, CA 90012
24208 San Michele Rd. Moreno Valley, CA, 92551	200 N Spring St, Los Angeles, CA 90012
<b>2125 W. San Bernardino Ave. Redlands, CA, 92374</b>	200 N Spring St, Los Angeles, CA 90012
255 Park Center Drive Patterson, CA, 95363	200 N Spring St, Los Angeles, CA 90012
1555 N. Chrisman Rd. Tracy, CA, 95304	200 N Spring St, Los Angeles, CA 90012
2496 W Walnut St. Rialto CA 92376	200 N Spring St, Los Angeles, CA 90012

and Miami customers:

Warehouse Address	Customer Address
6855 Shannon Pkwy., Union City, GA 30291	3500 Pan American Dr, Miami, FL 33133
1760 County Line Rd. Lakeland, FL, 33811	3500 Pan American Dr, Miami, FL 33133
3350 Laurel Ridge Ave. Ruskin, FL 33570	3500 Pan American Dr, Miami, FL 33133
6855 Shannon Pkwy., Union City, GA 30291	68 Mitchell St SW, Atlanta, GA 30303
1760 County Line Rd. Lakeland, FL, 33811	68 Mitchell St SW, Atlanta, GA 30303
3350 Laurel Ridge Ave. Ruskin, FL 33570	68 Mitchell St SW, Atlanta, GA 30303
6855 Shannon Pkwy., Union City, GA 30291	121 N LaSalle St, Chicago, IL 60602
1760 County Line Rd. Lakeland, FL, 33811	121 N LaSalle St, Chicago, IL 60602
3350 Laurel Ridge Ave. Ruskin, FL 33570	121 N LaSalle St, Chicago, IL 60602

## Improve

We picked the two locations that improve our logistics network the most and meet our overall goal of delivering to customers within two days.



## Control

Going forward we need to monitor logistics performance. Here is an example of a control table:

Demand					Lead Time				
Warehouse 1	Warehouse 2	Warehouse 3	Warehouse 4	Warehouse 5	Warehouse 1	Warehouse 2	Warehouse 3	Warehouse 4	Warehouse 5
1031	596	686	773	429	2	2	2	2	2
1078	516	1080	811	422	2	2	2	2	2
1014	600	921	799	428	2	2	2	2	2
1065	503	860	816	422	2	2	2	2	2
1011	593	1138	831	421	2	2	2	2	2
1011	551	933	834	411	2	2	2	2	2
1058	541	1155	823	434	2	2	2	2	2
1042	540	1076	758	440	2	2	2	2	2
1017	502	1028	828	440	2	2	2	2	2
1055	533	1184	775	433	2	2	2	2	2
1066	596	1152	800	434	2	2	2	2	2
1072	546	690	821	448	2	2	2	2	2
1076	600	1161	762	446	2	2	2	2	2
1048	501	771	754	425	2	2	2	2	2
1046	548	988	775	421	2	2	2	2	2
1044	573	572	818	438	2	2	2	2	2
1097	512	1010	817	416	2	2	2	2	2
1092	586	513	808	408	2	2	2	2	2
1088	583	1155	824	401	2	2	2	2	2
1066	577	786	764	446	2	2	2	2	2
1078	557	1165	777	448	2	2	2	2	2
1048	561	624	778	446	2	2	2	2	2
1013	541	542	790	434	2	2	2	2	2
1080	518	547	836	437	2	2	2	2	2
1048	581	600	786	411	2	2	2	2	2
1059	590	624	843	417	2	2	2	2	2
1001	548	616	846	415	2	2	2	2	2
1012	562	851	789	404	2	2	2	2	2