Creating Metrics for a Large Non-homogeneous Portfolio of Systems

Dan Cavey – Bank of America July 22, 2005



All numbers and dollars used in this presentation are for illustration only and are not actual Bank of America numbers. Units of magnitude have removed or obscured, or when included do not imply actual orders of magnitude only relative scaling.

In other words, don't take any of these numbers as real Bank of America data.

























Our problem...Non-homogeneity Architecture x FTE versus Organization Architecture versus FTE Org C High Med Low All Org A Org B Org D Org E All % 0.0 1.7 16.6 26.09 23.08 25.38 25.04 NNHigh 0.3 0.5 1.1 0.0 0.9 NN NNMed 15.22 23.98 33.98 32.12 31.78 3.7 NY 4.5 15 41.63 NNLow 12.5 45.65 34.07 23.3 20.0 ΥN 20.5 13.04 11.31 8.52 9.11 NYHigh 0.7 0.0 0.5 0 0.7 0.5 100 NYMed 1.4 5. 0.0 7.2 0.0 3.8 100 NYLow 33.5 27.5 46. 8.7 24.8 0. YNHigh 0.3 1.4 0.0 0.5 1.5 8 YNMed 4.5 3.0 7.1 5.5 6.6 22. 43.5 0.0 25.3 0.0 YNLow 26.9 18.5 24.3 26.0 NN NY NY YN YYHigh YYMed 0.3 1.4 12.8 0.8 0.5 0.4 1.1 0.5 0.0 2. 1.8 YYLow 8.7 6.2 6.9 100 100 100 100 All 100 100 Banhal America Wigher Standards

Non-homogeneity in FTE vs. LOC

FI	ГE	% Total	Systems	% Total	AENCSS	% Total	Team Size	\$/KAE
	333	20%	10	1%	444,444,444	15%	>=15	77.77
	111	10%	10	1%	88,888,888	4%	15>n>=10	123.45
	77	5%	10	1%	66,666,666	2%	10>n>=8	111.11
	177	10%	33	3%	333,333,333	15%	8>n>=6	55.55
	277	15%	66	6%	222,222,222	10%	6>n>=4	100.00
	377	20%	111	12%	555,555,555	20%	4>n>=2	66.66
	477	25%	888	72%	1,111,111,111	40%	n<2	33.33

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Portfolio Averages vs. Averages of the Portfolio Average \$/KAENCSS = 7,777

- Portfolio \$/KAENCSS = 77
 Some industry averages are put at about \$100/KAENCSS.
- Log-Normal Transform Mean \$/KAENCSS = 777
 - The data is Log-Normal











High	FO				⊅/App (IVIIVI)	Apps/\$M	Action
		4%	125	33%	2500	0.4 E	fficiency (Less FTE per App)
Medium	250	19%	150	40%	600	1.7	
Low	1000	77%	100	27%	100	10.0 E	ffectiveness (Smaller Portfolio)
ALL	Apps		Dollars (M)		\$/App (MM)	Apps/\$M	Action
nTeir	100	8%	50	13%	500	2.0	
Web	500	38%	175	47%	350	2.9 E	fficiency (Less FIE per App)
Server	300	23%	100	21%	333	3.0 8.0 F	ffestiveness (Creaties Destinie)
ME	400	31%	50	1 3 7/0			Harnvandee i Smanar Portiono

Two Dimensional: Size in Dollars by Architecture

nTeir	5	10%	20	16%	4000	0.3	Efficiency (Less FTE per App)
Web	25	50%	60	48%	2400	0.4 E	Efficiency (Less FTE per App)
Server	15	30%	30	24%	2000	0.5 E	Efficiency (Less FTE per App)
MF	5	10%	15	12%	3000	0.3	
	50		125		2500	0.4	
Med 40%	Apps		Dollars (M)		\$/App (MM)	Apps/\$M	Action
nTeir	25	10%	20	13%	800	1.3 E	Efficiency (Less FTE per App)
Web	100	40%	70	47%	700	1.4	
Server	50	20%	35	23%	700	1.4	
MF	75	30%	25	17%	333	3.0 E	Effectiveness (Smaller Portfolio)
	250		150		600	1.7	
Low 30%	Apps		Dollars (M)		\$/App (MM)	Apps/\$M	Action
Low 30% nTeir	Apps 75	8%	Dollars (M) 10	10%	\$/App (MM) 133	Apps/\$M 7.5	Action
Low 30% nTeir Web	Apps 75 325	8% 33%	Dollars (M) 10 40	10% 40%	\$/App (MM) 133 123	Apps/\$M 7.5 8.1 E	Action Effectiveness (Smaller Portfolio)
Low 30% nTeir Web Server	Apps 75 325 225	8% 33% 23%	Dollars (M) 10 40 25	10% 40% 25%	\$/App (MM) 133 123 111	Apps/\$M 7.5 8.1 E 9.0 E	Action Effectiveness (Smaller Portfolio) Effectiveness (Smaller Portfolio)
Low 30% nTeir Web Server MF	Apps 75 325 225 375	8% 33% 23% 38%	Dollars (M) 10 40 25 25	10% 40% 25% 25%	\$/App (MM) 133 123 111 67	Apps/\$M 7.5 8.1 E 9.0 E 15.0 E	Action Effectiveness (Smaller Portfolio) Effectiveness (Smaller Portfolio) Effectiveness (Smaller Portfolio)

Two Dimensional: Size in Dollars by Organization

Org Low 30%	Apps		Dollars (M)		\$/App (MM)	Apps/\$M	Action
Org A	300	30%	30	30%	100	10.0	Effectiveness (Smaller Portfolio)
Org B	300	30%	35	35%	117	8.6	Effectiveness (Smaller Portfolio)
Org C	225	23%	15	15%	67	15.0	Effectiveness (Smaller Portfolio)
Org D	125	13%	10	10%	80	12.5	
Org E	50	5%	10	10%	200	5.0	
	1000		100		100	10.0	

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- For the "Big 100"*, measure (drive) for a <u>smaller average FTE</u> per Application for the Same portfolio
- For the "Small 1500"*, measure (drive) for a <u>smaller portfolio size</u> with the same average FTE per Application.
- The total Administrative dollars and the Direct Expense dollars <u>must</u> <u>stay level or decrease</u> at the same time.

* The group size breaks at 100 and 1500 are somewhat arbitrary. The idea is that there are distinct groups that need different measures. Whether or not we look at the top 100, top 50, or top 5% doesn't matter, only that we recognize the need for the distinction between those at the top and those at the bottom.

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10% Total Dollar Save by 15% Efficiency on Target Groups





Conclusion:

We can measure at the Portfolio level using Stratification, and the Strata itself becomes the unit denominator for comparisons over time of across strata.

Since the goal is to improve some characteristic that is being measured, by improving the strata based measure we achieve the same goal for the individual systems in the strata.

