Smarter Data is the Answer:

What was the Question?

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Topics for Discussion

- **Introduction**
- **Big Data Gets Even Bigger**
- **It's All About Smarter Data**
- **Self-Service BI Analytic Options**
- **Summary / Q & A**

Data Facts You Should Know

data is the new oil

we need to find i
extract it, refine
distribute it and
monetize it.

David Bucking

I now pronounce you husband and wife! You may update your Facebook status!

320 flight creates **1 terabyte**

ransactions make up **1/3** of
mmerce transactions
ntillion bytes of <u>unstructured</u>
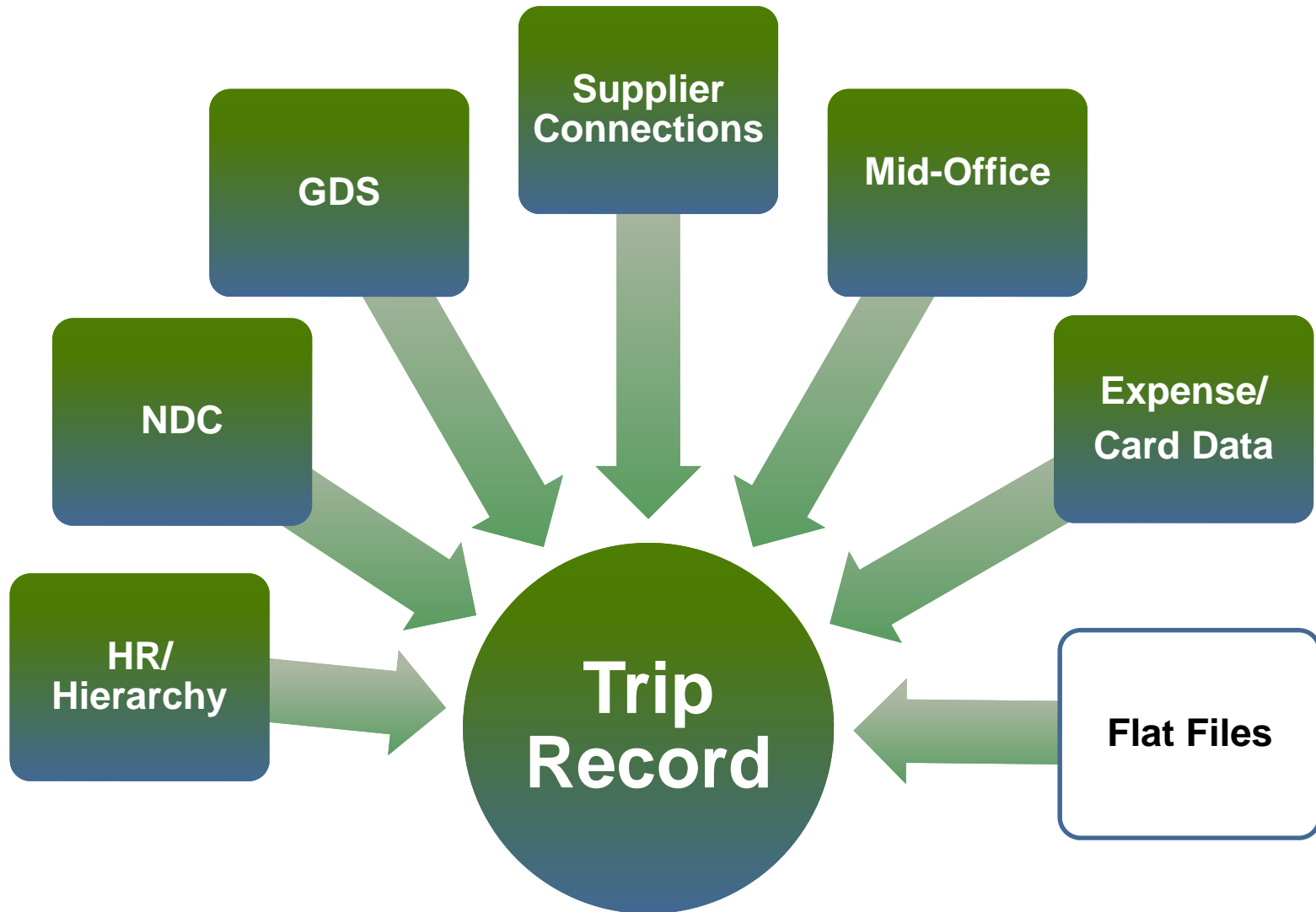eated daily
beyond the capability of
tional databases

Enable Good Decision Making

How Do I Communicate The Value of A Managed Travel Program

Data Sources

Data Challenges

It starts with Data.

- Data is the foundation to managing a smarter travel program

- Data needs to be clean, complete, and consistent

- Effective program analysis requires multiple data sources (booked,TMC,card,expense,suppliers)

- Data Consolidation often produces inconsistencies in reporting & analysis

- Trip Unity – Trip inside of a trip

- New Data Segments – Ferry, Bus, Rail, Subway

- Hotel Normalization

- Ancillary Fees – Associating fees and new fee structures

Does Clean Data Matter?
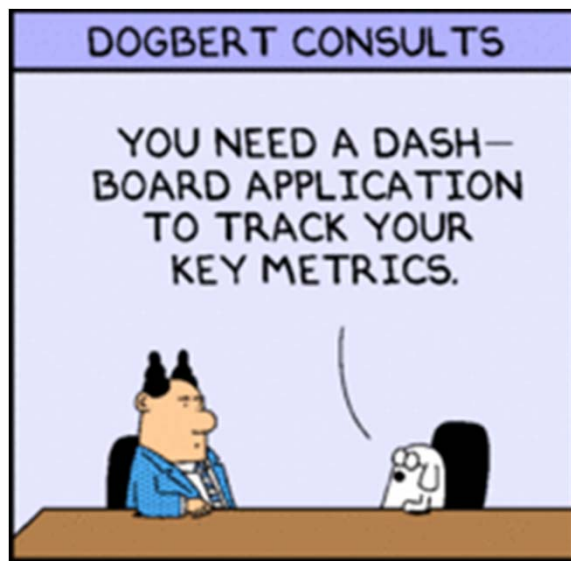
Data Quality Importance

Importance Of Travel Data Uses
Average Rating On A Scale of 1 (Not Important) To 4 (Very Important)

3.13 Provide reports/KPIs to management

3.11 Generate information for supplier negotiations

3.10 Monitor travel policy compliance

2.82 Consolidate travel suppliers

2.80 Perform internal benchmarking

Source: AirPlus International April-May 2012 survey of 97 corporate travel buyers in North America and Europe

Assessing Satisfaction With Travel Data
Accuracy & Reporting Present Problems

Top Reasons for Satisfaction	Top Reasons for Dissatisfaction
10% Data is accurate	23% Data is not always accurate
8% Amount is sufficient	20% Reports difficult to read/interpret
3% Helps enforce & establish policies	19% Reporting takes too long
3% Easily accessible	14% Not consolidated/hard to access
	8% Not enough provided
	5% Not always trustworthy
	2% Not sufficient to enforce policies

Assessing & Evaluating Data Sources

Data Sources	Respondents Using Data From Source	Find Data From Source "Very Valuable"
TMCs	96%	86%
Suppliers	93%	73%
Card Companies	76%	72%
Expense Systems	55%	83%
Expense Reports	46%	80%

Source: GBTA Foundation May 2012 survey sponsored by Carlson Wagonlit Travel, including responses from 174 members of the Global Business Travel Association and 31 CWT customers

Not So Smart Decision Making

New York-LaGuardia, CT, NYC	New York-LaGuardia	
NEW YORK, NY, ROC	NEW YORK	ors
NEW YORK, NY, ABI	NEW YORK	5%
New York-E 60th St, ,	New York-E 60th St	5%
NEW YORK JFK NY, NY, JFK	NEW YORK JFK NY	2%
BUFFALO INTL NEW YORK, NY, BUF	BUFFALO INTL NEW YORK	4%
NEW YORK CITY NY, , NYC	NEW YORK CITY NY	6%
NEW YORK NEWARD, , NYC	NEW YORK NEWARD	3%
NEW YORK NEWARK, NJ, NYC	NEW YORK NEWARK	1%
SYRACUSE HANCOCK NEW YORK, NY, SYR	SYRACUSE HANCOCK NEW YORK	4%
POUGHKEEPSIE DUT NEW YORK, NY, POU	POUGHKEEPSIE DUT NEW YORK	1%
NEWARK APT/NEW YORK, NJ, NYC	NEWARK APT/NEW YORK	3%
ITHACA TOMPKIN C NEW YORK, NY, ITH	ITHACA TOMPKIN C NEW YORK	9%
LONG ISLAND MACA NEW YORK, NY, ISP	LONG ISLAND MACA NEW YORK	9%
BINGHAMTON BROOM NEW YORK, NY, BGM	BINGHAMTON BROOM NEW YORK	3%
ALBANY COUNTY NEW YORK, NY, ALB	ALBANY COUNTY NEW YORK	5%
NEW YORK/JFK NEW YORK, NY, JFK	NEW YORK/JFK NEW YORK	2%
WESTCHESTER COUN NEW YORK, NY, HPN	WESTCHESTER COUN NEW YORK	4%
ROCHESTER MONROE NEW YORK, NY, ROC	ROCHESTER MONROE NEW YORK	1%
NEW YORK/EWR, NY, EWR	NEW YORK/EWR	5%
NEW YORK/LGA, NY, NYC	NEW YORK/LGA	1%
NEW YORK/EWR NEW YORK, NJ, EWR	NEW YORK/EWR NEW YORK	0%

Data Integrity & Decision Making

chaincode	proptyname	htlcity	htlstate	datein	dateout	bookrate
HY		NULL	NULL	2012-05-16 00:00:00	2012-05-18 00:00:00	0.0000
RC						
HC HY		NULL	ON	2012-05-	2012-05-	0.0000

origin	destinat	citypair	airline	departdate	arrivedate	deptime	arrtime	miles	actfare
IAH	DCA	DCA-IAH	CO	2007-12-05 00:00:00	NULL	16:25	NULL	1204	0.0000
DCA	IAH	DCA-IAH	CO	2007-12-07 00:00:00	NULL	15:50	NULL	1204	0.0000
XXX	ZZZ	XXX-ZZZ	CO	2007-10-29 00:00:00	NULL	00:00	NULL	0	0.0000
GSO	MKE	GSO-MKE	DL	2007-11-06 00:00:00	NULL	07:07	NULL	977	0.0000
MKE	GSO	GSO-MKE	DL	2007-11-07 00:00:00	NULL	07:30	NULL	647	0.0000
XXX	ZZZ	XXX-ZZZ	DL	2007-10-29 00:00:00	NULL	00:00	NULL	0	0.0000
SLC	PHX	PHX-SLC	US	2007-11-11 00:00:00	NULL	17:15	NULL	508	55.8200

Smart Data = Clean Data

Data Confidence Scoring

Step 2: Data Confidence Scoring

Outdated Travel Program KPIs

Avoid Meaningless Statistics

Top 10 Metrics

Total Spend

31.6% OF STATISTICS ARE COMPLETELY USELESS!

Avg. Price Avg. Rate

Cost Savings

Traditional Travel Metrics

Travel Program Spend	Q1	Q2	Q3	Q4	YTD
Total Transactions	1,104	1,038	1,175	95	4,312
Air Spend	$420,036	$426,870	$446,7	$361 3	$1,654,918
Hotel Spend	$ 8,44	$20 938	254, 2	$178 6	$ 0,065
Car Rental Spend	9,71	$1 767	$12, 7	$8 2	2,258
YTD Agency Fees: Online	$5,350	$4,075	$5,475	$5,025	$19,925
YTD Agency Fees: Full Service	$40,234	$40,019	$44,850	$37,227	$162,330
Total	$663,780	$691,669	$764,171	$589,873	$2,709,493

Online Adoption

Eligible Segments

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
% Online	33%	34%	37%	29%	33%	24%	28%	36%	47%	45%	41%	25%
# Online	57	77	80	53	60	50	49	63	107	81	92	28

Average Fee per Transaction

$28

Air Charges by Month

Top Five City Pairs YTD
Ranked by Segments

SFO-JFK $359,390 851
SFO-ORD $61,728 278
SFO-BOS $99,690 254
SFO-LAX $25,866 231
LGA-ORD $31,832 224

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	$105,929	$141,010	$172,497	$153,335	$146,533	$147,002	$136,341	$123,958	$181,498	$148,027	$151,897	$61,289
2010	$123,967	$137,800	$182,279	$123,256	$106,466	$148,648	$118,969	$110,211	$131,553	$135,354	$105,184	$73,104

Volume Segments
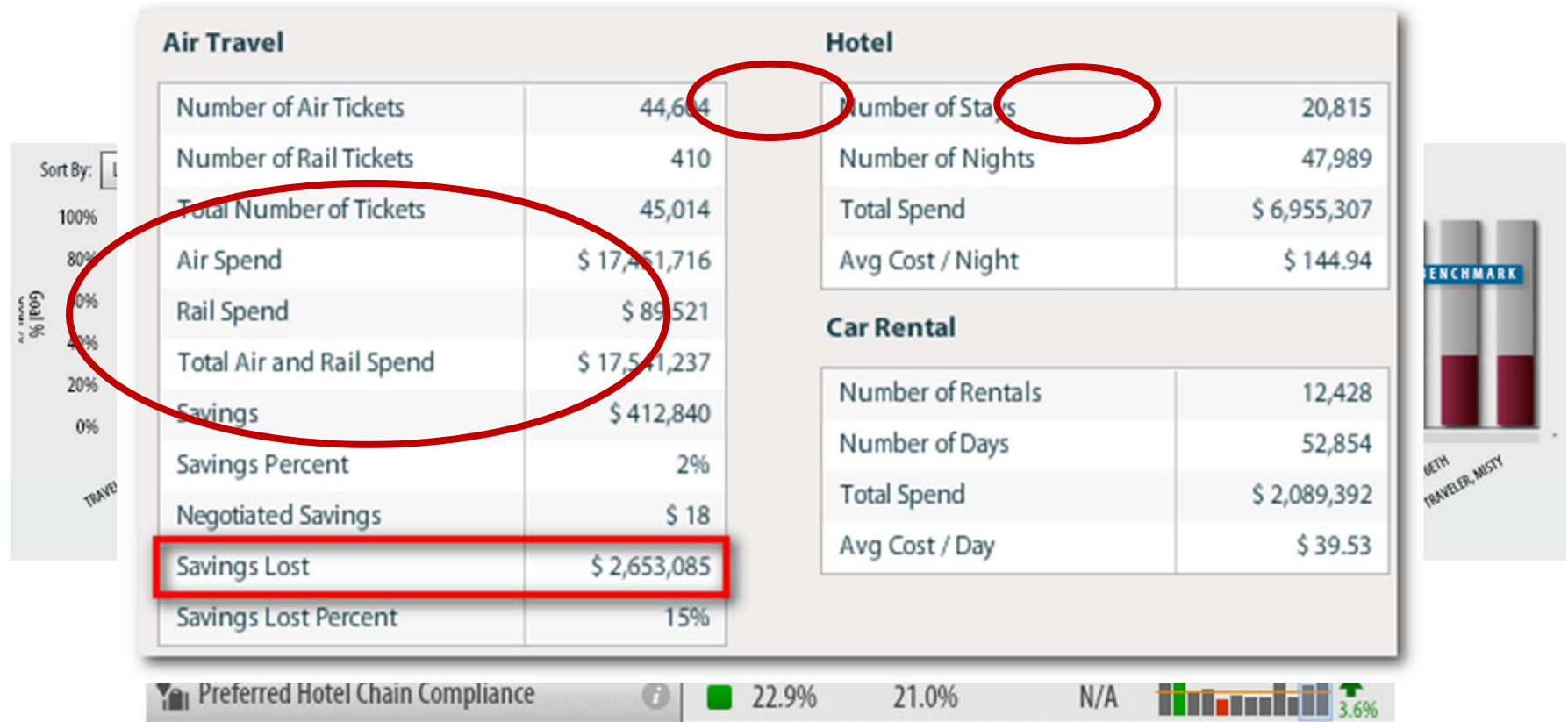
Smart Data = Smarter Analytics

- Identify KPIs that can be measured vs. Goals
- Utilize Peer-to-Peer Benchmarks to establish boundaries

Air Travel

Number of Air Tickets	44,604
Number of Rail Tickets	410
Total Number of Tickets	45,014
Air Spend	$ 17,451,716
Rail Spend	$ 89,521
Total Air and Rail Spend	$ 17,541,237
Savings	$ 412,840
Savings Percent	2%
Negotiated Savings	$ 18
Savings Lost	$ 2,653,085
Savings Lost Percent	15%

Hotel

Number of Stays	20,815
Number of Nights	47,989
Total Spend	$ 6,955,307
Avg Cost / Night	$ 144.94

Car Rental

Number of Rentals	12,428
Number of Days	52,854
Total Spend	$ 2,089,392
Avg Cost / Day	$ 39.53

Sort By:

100%
80%
20%
0%

BENCHMARK

| Preferred Hotel Chain Compliance | | 22.9% | 21.0% | N/A | | 3.6% |

Smart Data = Smarter Analytics

- **Fact: Hotel Spend spiraling upwards by 40%**
- **Goal: Control Spend by Enforcing Hotel Tier Level**

Top Hotel Properties

Hotel	Hotel Spend	# of Nights	# of Stays	Avg Spend/Night	Avg Spend/Stay	Avg Cost Per Night
Holiday Inn	$258,082.59	2225	1102	$115.99	$234.19	$ 224.46
Hilton Garden Inn	$166,525.07	1625	711	$102.47	$234.21	$ 181.96
Hampton Inn	$156,825.64	1269	647	$123.58	$242.38	
Hyatt Regency	$129,754.36	1510	601	$85.93	$215.89	$ 139.81
Hilton	$72,736.35	563	294	$129.19	$247.40	
Canadian Pacific	$52,543.33	430	217	$122.19	$242.13	$ 113.78
Midscale		2,501		$ 673,016	18%	$ 109.22

% Total Bookings

Preferred Hotel Utilization

$ 76.58

Hotel Property	Hotel Tier	Spend	# Nights	Share	Avg Rate	Benchmark
Sheraton Raleigh Downtown	Upper Midscale	$47,832.89	115	43.10%	$139.87	$155.34
Courtyard - Raleigh Midtown	Midscale	$27,311.82	109	14.30%	$112.50	$128.37
Doubletree Brownstone	Midscale	$17,221.98	64	6.90%	$131.59	$125.84
Hampton Inn Raleigh	Economy	$8,982.23	42	8.30%	$121.56	$118.21
Renaissance Raleigh	Upper Upscale	$3,423.28	13	3.70%	$251.19	$288.67
Residence Inn- Raleigh	Economy	$7,451.15	39	5.50%	$81.10	$88.12
Hampton Inn Raleigh Airport	Economy	$10,268.64	39	3.80%	$140.06	$137.88
Hilton Garden Northeast	Economy	$13,182.23	51	4.70%	$136.42	$158.45

Preferred Properties

$ 450,734

1.72
7.34
4.38 = $ 450,734

Do-it-yourself Business Intelligence

content portals

business intelligence

databases

CRM

Excel

tableau+public
www.tableau.com/public

Roambi™
www.roambi.com

JASPER SOFT
www.jaspersoft.com

pentaho™
www.pentaho.com

Take data directly from your travel reports

Step 1: Select A View

Choose from 10 different pre-defined views

- Each view is a unique combination of interactive navigation, visualization, and analytic features

- Designed to engage and guide you through your data.

Squares

Layers

Pulse

Cardex

CataList

Blink

Trends

PieView

Elements

SuperList

Step 2: Select Your Data Source

Import data from existing travel reports, XLS, CSV, CRM, BI, DBs, and more...

XLS Travel Report Import Example

	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
53	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
54	Air Fare	$28,561,398	$29,263,778	$24,842,858	$17,978,013	$14,149,647	$13,264,011	$11,987,674	$13,296,219	$13,924,731	$13,701,557	$13,903,189	$12,844,941
55	Air Net Segments	107365	98471	72439	54768	40122	36562	37538	42258	41538	43937	54419	44290
56	Air # of Tkts	51646	48149	35553	26671	19618	17851	18369	20658	20426	21086	23762	21552
57	Air Avg Seg Price	$266	$297	$343	$328	$353	$363	$319	$315	$335	$312	$255	$290
58	Air Avg Ticket Price	$553	$608	$699	$674	$721	$743	$653	$644	$682	$650	$585	$596
59													
60	Car Cost	$859,504	$871,891	$820,196	$614,974	$422,689	$427,982	$469,985	$470,195	$450,827	$456,348	$407,750	$302,406
61	Car Days	19042	19115	18360	13539	9328	9153	9870	10335	9862	10225	8989	6623
62	# of Bookings	6876	7088	6470	5088	3605	3410	3661	3951	3747	3856	3359	2269
63	Average Daily Rate	$45	$46	$45	$45	$45	$47	$48	$45	$46	$45	$45	$46
64	Average Booking	$125	$123	$127	$121	$117	$126	$128	$119	$120	$118	$121	$133

exec_summary_year_to_year.xlsx

		January	Year-to-Date	January	Year-to-Date	January	Year-to-Date
14	**Air Summary**						
15	# of Tickets:	20847	20847	24274	24274	16.44 %	16.44 %
16	Transactions - Invoices:	20526	20526	23802	23802	15.96 %	15.96 %
17	Credits:	321	321	472	472	47.04 %	47.04 %
18	Net # of Tickets:	20205	20205	23330	23330	15.47 %	15.47 %
19	Net # of Original Tickets:	18902	18902	21931	21931	16.02 %	16.02 %
20	Net # of Exchanges:	1303	1303	1399	1399	7.37 %	7.37 %
21	Net # Same Day RoundTrips / OneWays (Est'd):	3814	3814	5848	5848	53.33 %	53.33 %
22	Net # Overnight Trips (Estimated):	16391	16391	17482	17482	6.66 %	6.66 %
23	Avg Days Purchased in Advance:	34	34	31	31	-9.86 %	-9.86 %
24	Total Air Charges:	$11,026,659.08	$11,026,659.08	$13,962,514.17	$13,962,514.17	26.63 %	26.63 %
25	Average Ticket Price:	$545.74	$545.74	$598.48	$598.48	9.66 %	9.66 %
26	Savings from Std Fare:	$5,716,128.21	$5,716,128.21	$6,335,310.42	$6,335,310.42	10.83 %	10.83 %
27	Negotiated Savings:	$-16,253.45	$-16,253.45	$-17,398.38	$-17,398.38	7.04 %	7.04 %
28	Lost Savings:	$407,389.59	$407,389.59	$684,594.76	$684,594.76	68.04 %	68.04 %
29	% Lost:	3.69 %	3.69 %	4.90 %	4.90 %	32.79 %	32.79 %
30	Service Fees:	$499,153.54	$499,153.54	$551,234.27	$551,234.27	10.43 %	10.43 %
31	Total CO2 Emissions (Lbs.):	25,976,122	25,976,122	29,689,705	29,689,705	14.30 %	14.30 %
32	Average CO2 per Trip (Lbs.):	1,246	1,246	1,223	1,223	-1.84 %	-1.84 %
33	Total Miles Flown:	45,129,141	45,129,141	51,519,103	51,519,103	14.16 %	14.16 %
34	Average Miles per Trip:	2,234	2,234	2,208	2,208	-1.16 %	-1.16 %
35	Average Cost per Mile:	$0.24	$0.24	$0.27	$0.27	12.50 %	12.50 %

Step 3: Publish The Visualization

- Add users to your account if needed
- Securely share your *Views* down to browser,
  iPad/iPhone/or iPod touch
- Sit back and be engaged and guided through your data
- No IT resources needed

Making The Complex--- Simple

Cornerstone Travel Mgnt Summary - Cardex

| Departments	7 Day Adv Purchase	Self Booking	Pref Hotel Comp	Avg Ticket Price	Hotel Leakage	Q2 Goal Savings
Sales	74% ↑	35% ↓	52% ↑	$602 ↑	75% ↑	$1,313,230
Engineering	60% ↓	20% ↓	51% ↑	$663 ↑	81% ↑	$791,424
Executive	54% ↓	18% ↓	48% ↑	$879 ↑	46% ↓	$923,739
Manufacturing	79% ↑	39% ↓	70% ↑	$995 ↑	57% ↓	$878,537
IT	67% ↓	28% ↓	48% ↑	$693 ↑	70% —	$319,435
Marketing/PR	63% ↓	23% ↓	63% ↑	$588 ↑	76% ↑	$202,143
Human Resources	68% ↓	38% ↓	28% ↓	$610 ↑	68% ↓	$115,353
Operations	48% ↓	35% ↓	29% ↓	$587 ↑	80% ↑	$85,821
Support/Implement	23% ↓	43% ↓	13% ↓	$540 ↑	92% ↑	$6,847
Total	67% ↓	30% ↓	53% ↑	$676 ↑	63% ↓	$4,636,530

Cornerstone Travel Mgnt Summary -
Cardex : Airlines :

Monthly Data Table

From Browser to Mobile Device Access
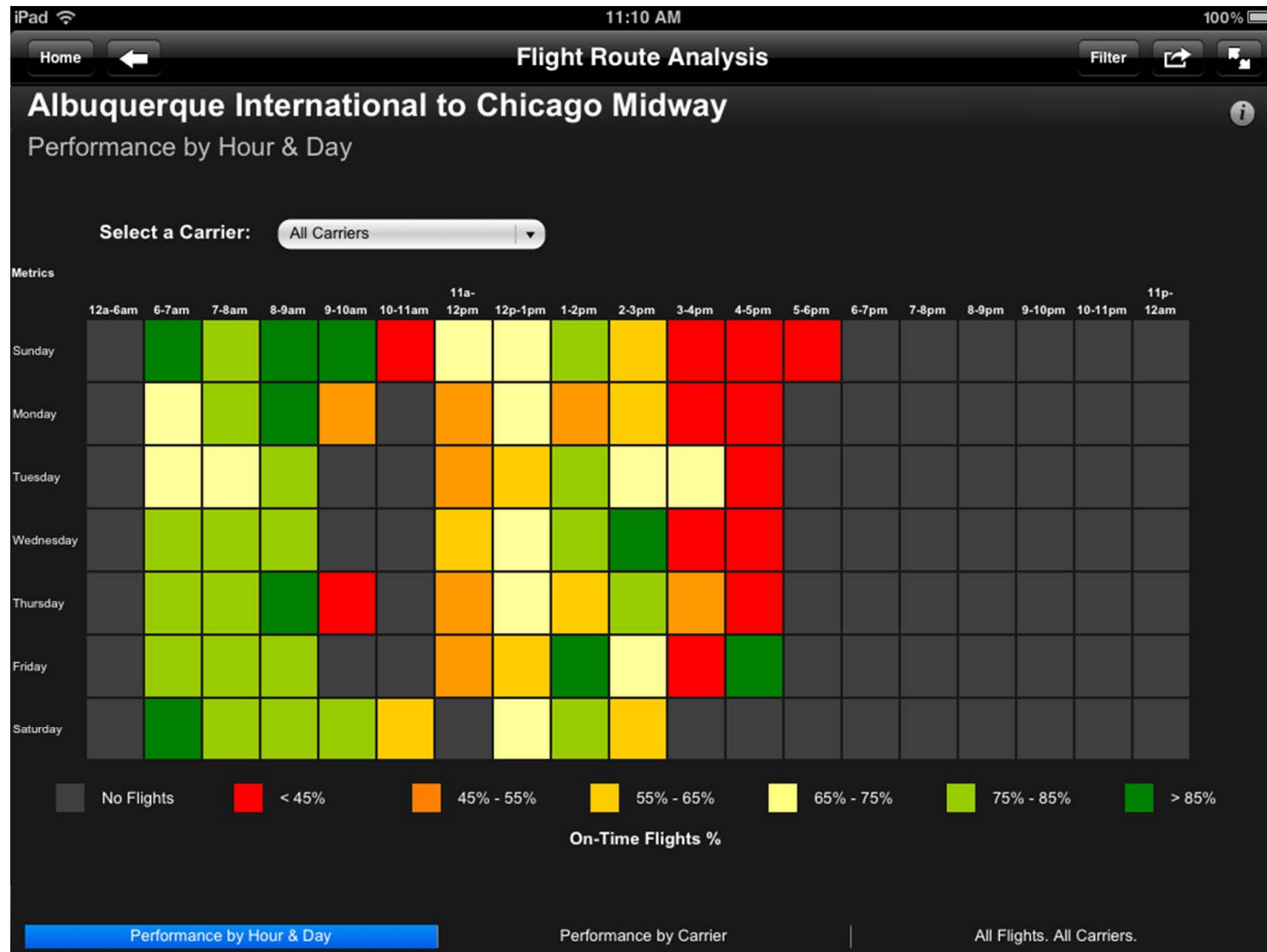
Analytic Insights to Remember

- Only measure what you're going to do something about

- Measure not what you can control, but what you can influence

- Measuring performance is not a tool, it's a way of life

Questions

Alan Minton
Sr. Vice-President, Sales & Marketing

Cornerstone
information systems