



Improve Cleaning Process for Smoking Rooms



Define – Project Definition

Business Case A metropolitan hotel has 838 guest rooms, of which 79 are designated smoking rooms. This represents 9.4% of the total room inventory. The number of designated smoking rooms has decreased over the last four years from 148 rooms to the current level due to room type changes based on historical need. Room Attendants assigned to clean more than 7 smoking rooms per shift are assigned one less room than their counterparts in non-smoking rooms, but there are otherwise no specialized tools, products or processes for cleaning smoking rooms.

Problem/Opportunity Statement Designated smoking rooms are currently cleaned in the exact same manner as a non-smoking room. Although the number of Smoking rooms has declined by 46% in the past four years, there are still instances in which guests requesting a non-Smoking room are placed in Smoking rooms due to an oversell situation in non-Smoking. These guests typically register complaints with the Front Desk regarding the odor in the room. We also receive occasional complaints about non-smoking rooms smelling like smoke. In addition, even guests that smoke at times complain about the odor in their smoking room. All of these situations are considered Defects and cost the hotel a compensation to the guest. There were 41 room odor defects and 2 hallway odor defects reported to the Front Desk for the period December 1, through February 28, which cost the hotel \$1384.

Scope This project will potentially involve the entire housekeeping team, and maintenance engineers. A new process for cleaning smoking rooms, and non-smoking rooms that have been smoked in should be identified through this project. We will also determine if our inventory of non-smoking rooms is optimal.



Define – Project Definition

- **Goal Statement:** The primary goal of this project is to reduce the number of guest complaints about smoke/odor, focusing on guests staying in designated smoking rooms. We expect to realize a 25% reduction in our Service Promise compensation for odor in rooms, saving the hotel approximately \$1,384 annually. Creating a new process for cleaning rooms that have been smoked in will also improve Cleanliness GSI scores and will be viewed favorably by the room attendants.
- **Key Assumptions:** 1. Guests will have a higher level of satisfaction if the rooms do not have a smoke odor. 2. Room attendant attitude toward cleaning smoking rooms will improve if a process is developed to reduce/eliminate the smell of smoke in the rooms.
- **Risks:** 1. The new process may be labor intensive and reduce productivity in these areas. 2. Additional cleaning products may be needed, adding costs to the room cleaning process.



Define - SIPOC

Improving Smoking Rooms Cleaning SIPOC Diagram

Supplier(s)	Inputs	Process	Outputs	Customer(s)
Guest; Hotel room inventory	Decision to stay in a hotel; Room availability	Make Reservation	Confirmation #; Special requests	Guest; Front Office; HSKP; Reservations; DORM;
Guest; DORM; Housekeeping; Reservations; Front Office	Arrival at hotel; confirmation #; vacant clean room; pre-blocking of rooms	Check-In	Room Assignment; Occupancy; Guest Satisfaction; Change in hotel rooms inventory	GM/Hotel; Guest; Front Office; Future guests
Guest	Occupied room	Check-Out	Rooms Revenue; Vacant, dirty room (occ dirty in stayover rooms); Guest Satisfaction; Service Promise Invocation	Housekeeping; GM/Hotel
Housekeeping; Guest; Galaxy	VD or OD room	Clean Room	VC or OC room; change in room inventory; Associate Satisfaction	Front office; New guest or stayover guest

1/23/03

*Key process steps are shown in BOLD text



Define – External Customer* Requirements

CUSTOMER* COMMENT	IMAGE OR ISSUE	REQUIREMENT
<i>"Our room is nice and clean, but I can smell smoke. Please do something to remove the smell."</i>	Smoke odor in room	Odor-Free room
<i>"My bedspread stinks. Please change it with a new one."</i>	Smoke odor in bedspread	Odor-Free soft goods in room
<i>"The smell in this room is too strong. The hallway too, smells too smoky."</i>	Smoke odor in room and hallway	Odor-Free room Odor-Free hallway

***Note: Customer is Guest on a smoking floor who is a self-identified smoker - from Service Promise interactions**



Define – External Customer* Requirements

CUSTOMER COMMENT	IMAGE OR ISSUE	REQUIREMENT
<i>"We need our room cleaned right away. Please use something to remove the smelly smoke in our room." (730)</i>	Smoke odor in room	Odor-Free room
<i>"I was going out and when I opened the door, I smelled tobacco. It's horrible." (3024; floor is 1/2 smoking; 1/2 non-smoking)</i>	Smoke odor in hallway	Odor-Free hallway
<i>"When we made our reservations we made it clear that we wanted to be in a non-smoking room. This room smells of cigarettes." (2923)</i>	Smoke odor in designated non-smoking room	Odor-Free room Guest perception that room type requests are honored

***Note: Customer is Guest who is a self-identified non-smoker in a non-smoking room - from Service Promise interactions**



Define – Internal Customer* Requirements

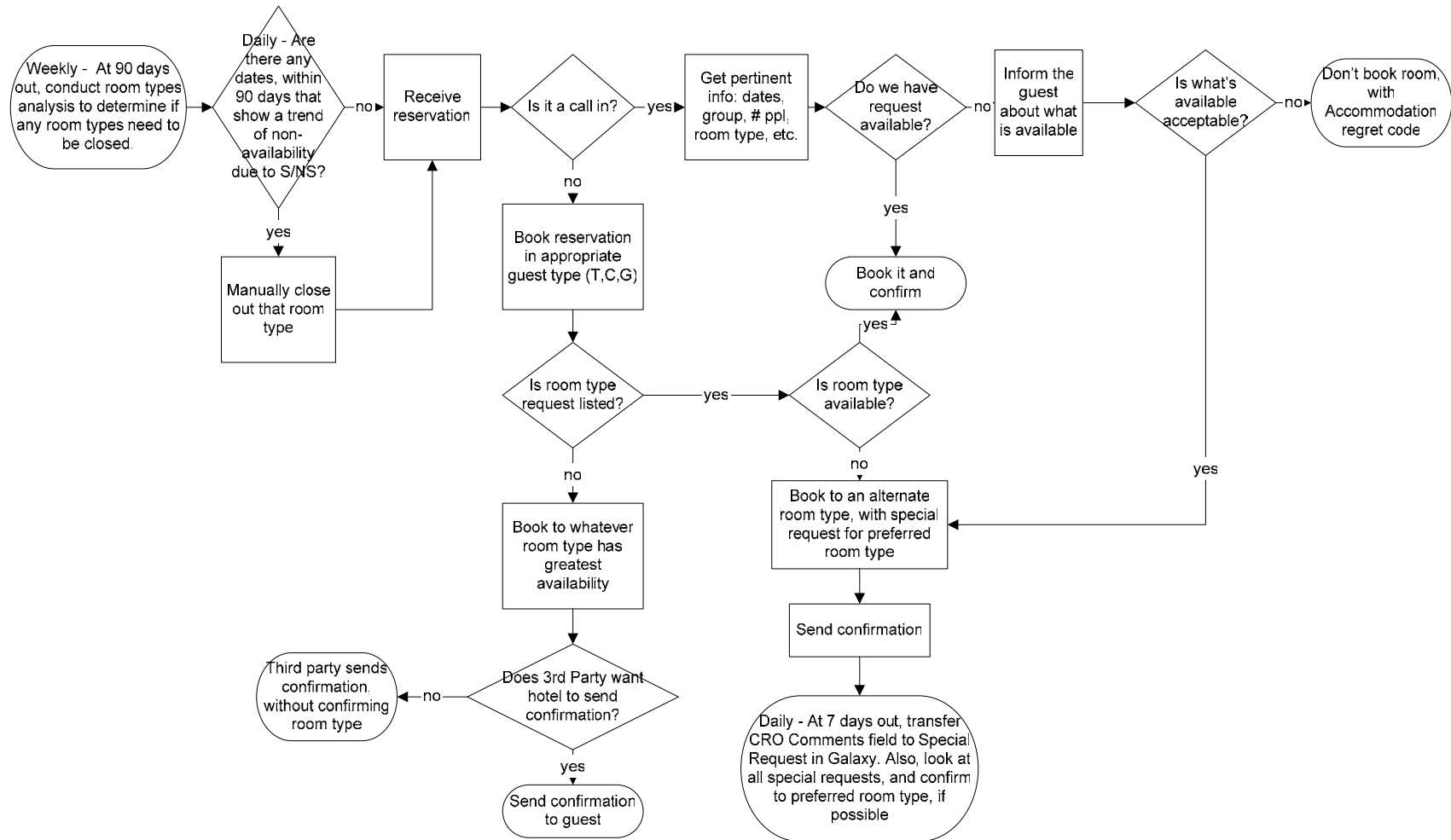
CUSTOMER* COMMENT	IMAGE OR ISSUE	REQUIREMENT
<i>"Smoking Rooms take longer to clean because they are messier, and we have to call for ozone/nature's mist"</i>	Time allotment to clean smoking rooms; no current process for smoking room cleaning	Need adequate time and clear process to address the specialized needs of cleaning a smoking room
<i>"Suppliers on smoking floors should have lots of supplies like blankets, bedspreads, shower liners and curtains"</i>	Smoking rooms require more frequent changing of soft goods	Adequate soft good supplies
<i>"I don't like cleaning smoking rooms because they smell bad"</i>	Odor in smoking rooms	Odor-free smoking rooms

***Note: Customer is Housekeeping Room Attendants**



Define – Process Mapping

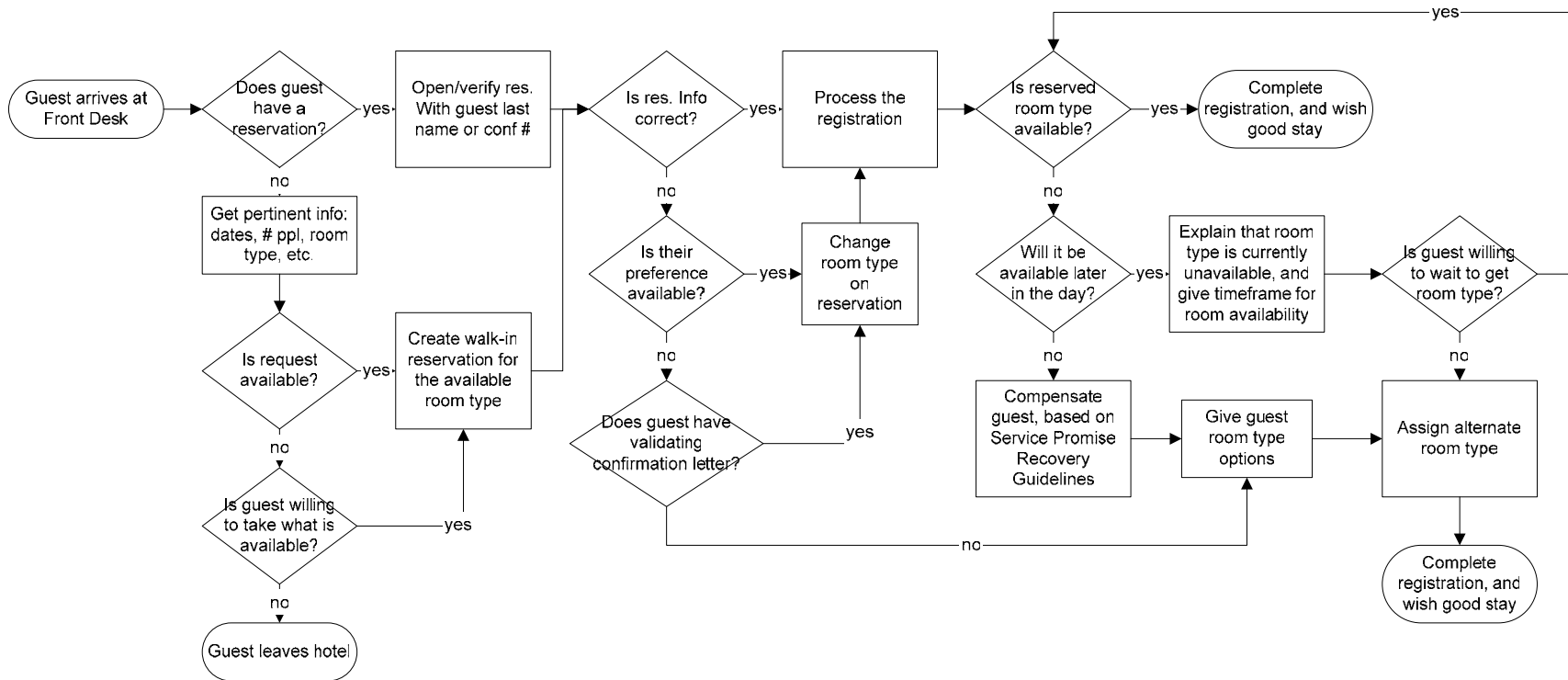
As-Is Reservations Process





Define – Process Mapping

As-Is Check-In Process





Measure – Data Collection Plan - Reservations

DATA COLLECTION PLAN WORKSHEET for Reservation Process

Clarify Data Collection Goals			Develop Operational Definitions and Procedures					
<u>Measure</u>	<u>Type Measure</u>	<u>Type Data</u>	Operational Definition		Sampling		<u>Collection Recording</u>	<u>Other Conditions</u>
			<u>What</u>	<u>How</u>	<u>What</u>	<u>When</u>		
% of smoking room inventory - local hotels;	%	Discrete?	# of designated smoking rooms divided by the total number of rooms	Calling local hotels	Gathering room type information	1/31-2/10	Comparative Hotel Smoking Room Data Spreadsheet	
# of times there is no res. Due to lack of room type availability - SMNS	Count	Discrete	# of no-sell, due to lack of inventory availability - non smoking; smoking	In-house reservations tracking	All incoming calls	2/5-2/10	Reservation Data Spreadsheet	



Measure – Data Collection Plan - Check-In

DATA COLLECTION PLAN WORKSHEET for Check-in Process

Clarify Data Collection Goals			Develop Operational Definitions and Procedures					
<i>Measure</i>	<i>Type Measure</i>	<i>Type Data</i>	Operational Definition		Sampling		<i>Collection Recording</i>	<i>Other Conditions</i>
			<i>What</i>	<i>How</i>	<i>What</i>	<i>When</i>		
# of non-smokers in smoking rooms	Count	Discrete	All occupied smoking rooms with registered guest's Special Service Code of XNS or NS	Report	All smoking rooms	1/22-1/28; 2/2-2/7;2/28-3/4	Final Data Compilation Spreadsheet; NS in SM Room tab	
# of room moves due to smoke smell	Count	Discrete	From the Room Rate Change Report any room move that is described as being due to smoke smell	Report Run during Night Audit	All rooms	1/31-2/9	Final Data Compilation Spreadsheet; Room Moves tab	



Measure – Data Collection Plan - Room Cleaning

DATA COLLECTION PLAN WORKSHEET for Room Cleaning Process

Clarify Data Collection Goals			Develop Operational Definitions and Procedures					
<u>Measure</u>	<u>Type Measure</u>	<u>Type Data</u>	<u>Operational Definition</u>		<u>Sampling</u>		<u>Collection Recording</u>	<u>Other Conditions</u>
			<u>What</u>	<u>How</u>	<u>What</u>	<u>When</u>		
Smoking Rooms ozoned due to Smoke Odor	Count	Discrete	Smoking Rooms receiving ozone treatment by date	HSKP RA data	All ozone requests + RA notation	1/22/03-2/11/03	Final Data Compilation Spreadsheet & HSKP Smoking Rooms Data	
Smoking Rooms Nature's Misted due to Smoke Odor	Count	Discrete	Smoking Rooms receiving Nature's Mist treatment by date	HSKP Data	All Nature's Mist requests	1/22/03-2/11/04	Final Data Compilation Spreadsheet	
# of Defects due to smoke odor	Count	Discrete	Using SGR Groups of Cleanliness & Check-In, with Categories of Odor & Room Assignment, with Detail of Odor in Room, NS Room Smells Like Smoke & Smoking Pref Gtd, Smoking Pref Req.	HSKP Report	All defects in the system	9/1/02-2/17/03	Baseline Data Spreadsheet	
Effectiveness of Room Cleaning Process for Smoking Rooms	Index	Continuous	Measure of room smell acceptability by managers in the hotel to rooms before and after differing room treatments	Blind test; Before and After Treatment	7 designated smoking rooms	2/3/2003	Room Cleaning Effectiveness Excel Spreadsheet	



Measure – Performance Measures

Baseline Performance Measures

Calculation Period = December 1 to February 28

CTQ	Calculation				Sigma Level
	Defects	Units	% Defect	Yield	
Smoke odor-free guest rooms (from Odor in Room & Non-Smoking Guest Room Smells Like Smoke)	41	49663 # occ guest rooms	0.083%	99.917%	4.65
Smoke odor-free hallway (from Cleanliness - Public Space - Odor in Room)	2	2610 # hallways * 90 days	0.077%	99.923%	4.7
Process for cleaning rooms that have been smoked in	1	1	100.00%	0%	0

	# occ rms
December-02	15,025
January-03	19,039
February-03	15,599
TOTAL	49,663

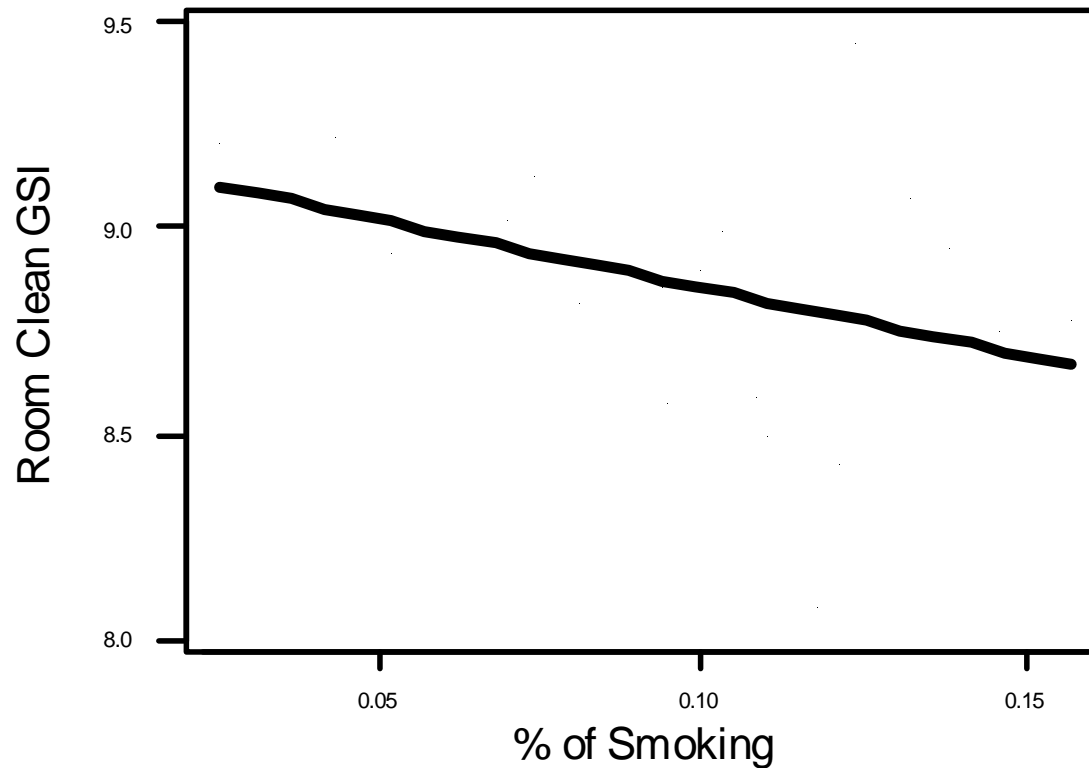


Measure - Comparative Hotels

% Smoking Rooms as a Predictor of Cleanliness GSI

Room Clean G = 9.18968 - 3.34758 % of Smoking

S = 0.316058 R-Sq = 12.7 % R-Sq(adj) = 7.6 %



Correlations: % of Smoking Rooms, Room Clean GSI

Pearson correlation of % of Smoking Rooms and Room Clean GSI = -0.357

P-Value = 0.134