

7 CONTRACT CONSOLIDATION

In previous contract reviews, recommendations have been forwarded that suggest there would be efficiencies to be gained by consolidating GRTA's five service operations contracts. In May 2015, in response to these recommendations and in conjunction with GCT, GRTA issued a solicitation for the operation of *Xpress* service. The solicitation issued would consolidate four of GRTA's five service operations agreements in existence at that time. The consolidated contract will take effect on July 1, 2016 and includes all *Xpress* service except for those routes currently being operated by CCT.

GRTA currently has an intergovernmental agreement (IGA) with CCT which will expire on June 30, 2016. CCT's service agreement with their service provider Transdev, however, does not expire until June 30, 2017. The contract with CCT has been held out of this analysis under the assumption that a new IGA will take effect on July 1, 2016.

The purpose of this chapter is to summarize the findings of the contract review and the expected benefits of consolidating the *Xpress* operating contracts. The analysis was completed in March 2015.

CONSOLIDATION GOALS AND DECISION CRITERIA

The goal of this evaluation is simple: determine if there are advantages to GRTA and GCT to consolidating contracts. The evaluation must necessarily establish a definition for the word "advantageous," for which the most relevant factors are listed below. Furthermore, the definition of "consolidation" must also be established to clearly articulate a decision path, and the options under consideration are described in the next section.

The most significant potential benefit in contract consolidation is a financial benefit which has several dimensions, each of which must be explored as one of the evaluation criteria. It should also be noted that each of these factors may be different for GRTA and GCT and will need to be evaluated from each of those perspectives.

- **Overall contracting costs** – This is a question of economy of scale. Does contract consolidation create enough difference in scale that a difference in contracting costs would be noticeable? This would primarily be seen in labor rates which in GRTA's case are mostly set by collective bargaining agreements. However, in cases where there is likely to be more work and a larger pool of workers from which to choose, a contractor may have added leverage in terms of negotiating better hourly rates. This affect may not be noticeable in the a final contract as there is almost no way to evaluate what might have happened had the RFP been issued under a different set of conditions. There are also factors that can drive labor rates in the opposite direction, such as the availability of candidates willing to work for the offered rate. Typically, the better the economy of an area, as measured by the unemployment rate, the more difficult it is for transit operators to attract and retain workforce at lower wage rates. Sometimes it is necessary to offer higher wage rates to attract candidates, no matter what the scale of the operation. There may also be some economies to be gained in terms of labor productivity. For example, in contracts of this size, one mechanic can assume responsibility for as many as eight buses. If a contract entails operating only two or three buses, the economies of scale are more difficult to achieve.

- **Management overhead** – This is also a question of economy of scale, but in a different way. Typically each contract requires a “project manager” or “general manager” to oversee contract administration. The more revenue hours of service a general manager oversees, the lower the overhead cost per unit of service. The same may be true for operations managers, maintenance managers, human resource managers, etc. The question to be answered in this analysis: does a larger pool of revenue service hours result in lower management overhead costs?
- **Facilities** – Presently, GRTA services are operated out of five different garages¹, four of which are included in this analysis. Can contract consolidation save resources by reducing the number of garages that must be paid for and maintained? It is also possible that some consolidation options open the risk of GRTA and GCT needing to add a garage. Are there financial risks to GRTA and GCT in terms of paying for more space under a particular scenario?
- **CNG Fueling Station** – At present, GRTA utilizes a CNG fueling station controlled by Veolia and provided by GCT. The buses affected are only those used on Route 408, Route 410, and buses deployed as backup on Route 412. GRTA intends to convert Route 408 to diesel buses as soon as possible, but until then the buses will remain CNG. What costs or logistical issues might occur if, as a result of a consolidation option, GRTA no longer has access to a CNG fueling station? What options exist? What costs might GRTA incur?
- **Deadhead costs** – In all but one of the current contracts (GRTA’s PTM-operated routes being the exception), GRTA and GCT pay based on revenue service hours. However, express-type services are notoriously inefficient in terms of the ratio of revenue service hours to total vehicle hours. This inefficiency, even though specifically excluded in the rate structure, is recaptured by the service contractor with the unit cost for each revenue hour. The question to be answered in this analysis is whether contract consolidation could lead to a more optimal distribution of deadhead by assigning routes based on garage location rather than which contractor provides the service. Another strategy to reduce deadhead if there is enough economy of scale is to secure a midday parking area in Downtown or Midtown Atlanta. Contract consolidation might lead to a large enough financial benefit to make such an initiative cost-effective.

Aside from costs, there are other dimensions that are less quantifiable, but could be factors in the decision process all other things being equal. Those criteria include:

- **Administrative burden** – Today, GRTA staff have responsibility for administrating five different contracts, each with individual provisions that make them unique. Further, there are four different sets of contractor personnel with which GRTA staff must interface. If there were only two contracts (one combined contract investigated in this chapter and the Cobb Community Transit contract), would GRTA staff be in a position to spend less time reviewing invoices, charges for liquidated damages, procuring parts and services, and dealing with differing contractor personalities and more time focused on service quality and contractor performance?
- **Reporting** – Each GRTA contract currently carries slightly different reporting requirements. It is difficult for GRTA staff to assess and compare, at any level of detail, metrics such as ridership, on-time performance, productivity, service effectiveness, etc. If the reporting requirements were made uniform through contract consolidation, would the result provide benefits to the staff and management of GRTA in terms of being more conversant with a uniform set of service metrics? For GCT this is less of an issue as reporting is presently provided through a single source, however, opportunities to gather new and improved information may be presented through a more unified contracting approach.

¹ The five facilities are: two operated by PTM (316 Cash Memorial Boulevard and 5250 Frontage Road), American Coach (705 Lively Avenue), GCT (2880 Remington Park Court). The fifth facility is operated by CCT (800 S Marietta Parkway SE) and is not considered in this analysis.

- **Flexibility** – This is, perhaps, the least quantitative of all the criteria. Is the ability to move personnel, buses, and routes between garages, assuming all the garages are under the control of a single contractor, advantageous to GRTA and GCT in terms of managing service and service quality over the longer term? Does the ability to move services between garages enhance the ability to revise established service patterns? How would a consolidated contract affect GRTA's and GCT's ability to add new routes/service
- **Consistent customer experience** – A consolidated contract could establish uniform maintenance standards, customer service, on-time performance, fare structure, service quality standards, etc. For example, consolidation might make it possible for GRTA's and GCT's to consider establishing a common fare structure for all routes.
- **Federal and State Funding** – Would consolidation influence the ability to apply Federal or state funds in the way they are presently being applied for either GRTA or GCT (e.g., capital cost of contracting vs. preventive maintenance)? There is more information about the particulars of capital cost of contracting in the summary evaluation at the end of the chapter.
- **GCT administrative/policy decision-making** – One potential financial “advantage” to GCT would be that the county would no longer have to appropriate funds for the GCT-operated Xpress routes within the annual operating budget. While these funds are offset by revenues received from GRTA once the service is provided and GRTA is invoiced by GCT, the administrative burden to budget for and track the expenses and revenues still remains with GCT staff. While this factor does not necessarily save Gwinnett County money, it does reduce the “ask” of the policy board.

CONTRACT SCENARIOS

There are four GRTA operating contracts and two GCT service groups (presently both service groups are under one contract with a differential rate structure) to be considered in this evaluation. Mathematically that means there are 12 different combinations that could be evaluated, but practically there are six that make sense from a contracting perspective, including the existing contract distribution. Figure 7-1 below illustrates six different scenarios that will be evaluated in this effort. For purposes of emphasis, GCT has not expressed a desire to pursue any one of these scenarios but is interested in at least understanding the potential benefits of each.

Figure 7-1 Potential Contracting Scenarios

Option	PTM	American Coach	Veolia (Route 408)	GCT-Operated 400-Series Routes	GCT 100-Series Routes	GCT Local Routes and Paratransit
Existing	Contract 1	Contract 2	Contract 3	Contract 4		
A	Contract 1	Contract 2			Contract 3	
B	Contract 1				Contract 2	
C	Contract 1				Contract 2	
D	Contract 1					
E	Contract 1		Contract 2			
F	Contract 1			Contract 2		

SKETCH PLANNING

In order to determine the viability of each Option, existing service currently operated by each contractor was evaluated in terms of number of buses as well as deadhead miles. Deadhead represents a significant cost to the system, as the nature of commuter express service leads to a significant proportion of deadhead operation. *Xpress* service is currently operated out of five base locations distributed throughout the service area (Figure 7-2), four of which are included in this analysis. It is important to note that capacity issues exist at some of the base locations. Capacity at each facility is as follows:

American Coach: Located in Norcross, is a facility that is primarily engaged as the central operating point for American Coach’s charter operations for the greater Atlanta region. GRTA service, routes 400, 411, 413, and 416, measured in number of vehicles, is a small portion of the overall operation at this facility. In their proposal response (2010, GRTA Solicitation 10-026) American Coach states that the facility has accommodated as many as 300 buses. Presently, it is operating with about 100 buses and so has capacity. According to information provided by American Coach in their proposal, GRTA does not currently pay any allocated share of this facility, including the operating costs (utilities, etc). This wrinkle adds a level of speculation into this analysis. If American Coach is not the selected contractor for this area it is highly likely that the present base location continues to serve its primary function for American Coach as it has for more than 25 years and would no longer be available to support GRTA operations.

In that case where does the base capacity come from to support the various combinations of operations contemplated in the above scenarios? Without launching a real estate search to support the analysis, this adds a degree of uncertainty and risk into the analysis. While it is commonly believed that generally suitable locations are available in the NE sector of GRTA’s service area, there is no concrete evidence that such a facility exists. Beyond that, without a specific property to use as a guide, there is the issue of annual

lease and operating costs for the base. In each case the possibility exists that the American Coach base may not be available. To ensure this is represented in the analysis we have made the following assumptions:

- A base with location and access characteristics similar to the American Coach base is available and will not significantly impact the deadhead analysis in this chapter.
- The hypothetical base will have sufficient capacity to meet the needs of each scenario.
- The cost to lease and operate the base will be similar to the costs to lease and operate the current Veolia/GCT base.

It is important to recognize this issue adds a degree of risk into the analysis. However, under any circumstance, other than a perpetual contract awarded to American Coach, the degree of risk is similar as there is no assurance American Coach would be awarded any new contract. Therefore, the degree of risk is similar under any future possibility other than a precise duplication of the status quo.

GCT: This facility is currently at capacity and, not including spare vehicles, serves as a base for 21 *Xpress* buses. The base has capacity for 65 express buses, 33 local buses, and 10 paratransit vehicles.

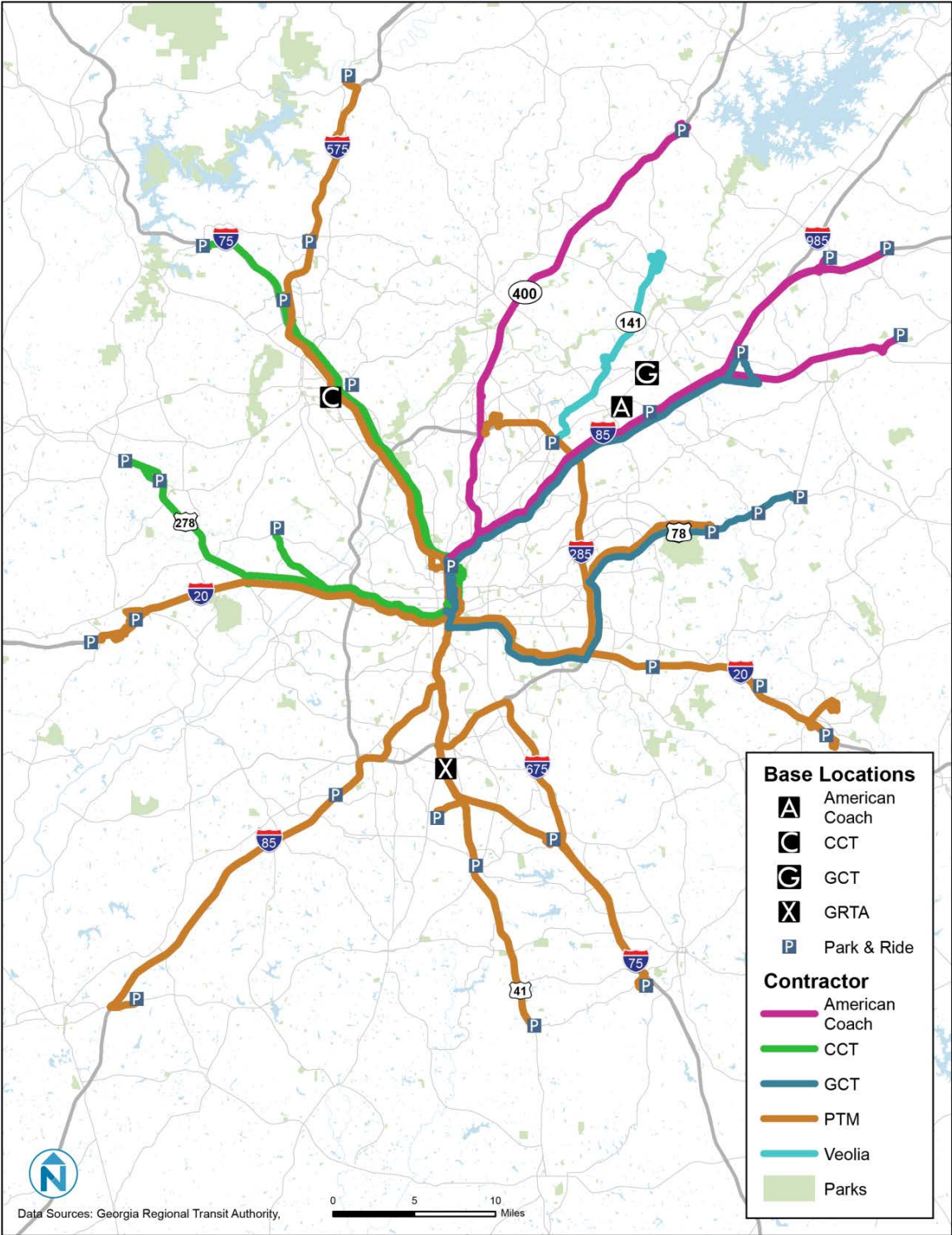
PTM: PTM-operated routes are currently based out of two facilities in Forest Park. These facilities will be consolidated into the new *Xpress* South Operating Facility which will accommodate up to 120 vehicles starting in August 2016. The two existing facilities currently store 105 vehicles, including spare vehicles.

It should be noted that GRTA and GCT do not directly reimburse contractors for deadhead miles. However, because it is such a significant portion of overall operating time and miles, contractors build in excess charges in their rates per hour of revenue service to recover these costs. So despite appearing to be cost free, GRTA and GCT do indirectly pay for deadhead costs. The more the system can be designed to lower deadhead costs, the lower the rate paid per revenue hour.

Xpress routes by contractor and number of deadhead miles operated are shown in Figure 7-3, and estimated existing deadhead miles operated on GCT 100-Series routes are shown in Figure 7-4. *Xpress* currently operates more than 8,000 daily deadhead miles, an especially significant amount considering that *Xpress* reported approximately 10,500 daily revenue miles to NTD in 2012. After determining the existing amount of deadhead and the associated number of buses currently operated by each contractor, the deadhead implications of each Option were evaluated. Each scenario was evaluated based on the distribution of routes to facilities.

System-wide deadhead time is about 40% of all miles and hours operated by the GRTA system and so represents a significant cost. The six contracting scenarios create implications for either decreasing or increasing deadhead costs compared to the existing contracting situation. The current operating facilities in Gwinnett County, presently under lease to Veolia (GCT contract), is at capacity. In some scenarios an assumption was made that two base locations will continue to be used to provide GRTA and GCT service in this part of the region. It was also assumed that the locations and capacities of the facilities would be comparable to the current facilities (if not actually operated out of the current facilities), and, therefore, for purposes of this analysis, the locations and capacities of the current facilities were used as proxies. Furthermore, it was assumed that the GCT local and paratransit service would continue to operate out of the same facility (i.e., the hypothetical facility at the current Veolia facility location) in all options except Option D, where it was assumed that all operations in Gwinnett County are consolidated to a hypothetical single operating base.

Figure 7-2 Xpress Routes and Base Locations by Contractor



DIRECT XPRESS | FINAL REPORT
Georgia Regional Transportation Authority

Figure 7-3 Description of Xpress Routes by Contractor

Route	Description	Interstate Corridor	Contractor	Estimated Daily Deadhead (Miles)	Number of Peak Buses
400	Cumming to North Springs and Downtown	Northeast	American Coach	372	5
408	Doraville to Johns Creek Parkway		Veolia	126	4
410	Sugarloaf Mills to Lindbergh MARTA Station		GCT	151	3
411	Hamilton Mill/Mall of GA to Midtown Atlanta		American Coach	329	4
412	Sugarloaf Mills to Downtown Atlanta		GCT	249	5
413	Hamilton Mill to Downtown Atlanta		American Coach	426	5
416	Dacula to Downtown Atlanta		American Coach	405	5
418	Snellville to Downtown Atlanta		GCT	362	5
420	West Conyers to Downtown Atlanta	East	PTM	260	4
421	West Conyers to Midtown Atlanta		PTM	188	3
422	Panola Rd. to Downtown Atlanta		PTM	183	3
423	E. Conyers/Panola Rd. to Midtown Atlanta		PTM	313	4
424	Stone Mountain to Downtown Atlanta		PTM	340	4
425	E. Conyers to Downtown Atlanta		PTM	540	6
428	Panola Rd. to Perimeter Center		PTM	257	3
430	McDonough to Downtown/Midtown Atlanta		South	PTM	384
431	Stockbridge to Midtown Atlanta	PTM		127	3
432	Stockbridge to Downtown Atlanta	PTM		215	5
440	Hampton/Jonesboro to Downtown Atlanta	PTM		358	6
441	Jonesboro to Midtown Atlanta	PTM		116	3
442	Riverdale to Downtown Atlanta	PTM		103	3
450	Newnan to Downtown Atlanta	PTM		392	5
451*	Newnan to Midtown Atlanta	PTM		25	2
455*	Union City to Downtown Atlanta	PTM		25	2
451/455	Newnan/Union City to Downtown/Midtown Atlanta	PTM		155	1
460	Douglasville to Downtown Atlanta	West	PTM	602	7
461/462	Douglasville to Downtown/Midtown Atlanta		PTM	368	4
490	Canton-Woodstock to Downtown Atlanta	North	PTM	424	4
491	Woodstock to Midtown Atlanta		PTM	320	3
TOTAL				8,113	117

*Routes combined in PM commute. Route 451/455 uses a total of five buses, including buses used in the morning on Route 451 and 455.

Figure 7-4 Description of GCT 100-Series Routes

Route	Description	Estimated Daily Deadhead (Miles)	Number of Peak Buses
100	I-985/SR 20 to Downtown Atlanta	519	7
101	Indian Trail to Downtown Atlanta	157	3
102	Sugarloaf Mills to Downtown Atlanta	727	14
TOTAL		1,403	24

Sketch Planning Results

As part of the sketch planning analysis, daily deadhead miles were calculated for each route in relation to each base location in the *Xpress* network. Through this process, the optimal existing base location was determined for each route. A summary of the optimal route-level deadhead evaluation is shown in Figure 7-5. It is important to note that this analysis leverages the assumption stated above, that some facility is available in the NE sector that will be equally suitable for all scenarios, but will have a cost similar to the current GCT/Veolia base, also located in Norcross. This assumption is far more important to the overall cost than to the deadhead analysis. But, due to the fact that no capacity constraints are assumed for any scenario, the deadhead costs are virtually the same for all scenarios.

The GCT's routes were taken into account as part of Options C and D. In Option C, the 100-series routes were considered. In Option D all the GCT routes and paratransit were considered. In Option C the GCT 100-Series routes might be based at a separate location from GCT's current local and paratransit service (i.e., at the hypothetical base). In Option D all GCT operations would be located at a base large enough to house all GCT and GRTA operations in the NE sector. Results show that in these instances GCT 100-Series routes could have slightly reduced daily deadhead miles by using a base site slightly to the west of the current site, approximately 80 daily miles, or 20,400 miles per year.

DIRECT XPRESS | FINAL REPORT
Georgia Regional Transportation Authority

Figure 7-5 Optimal Route-Level Base Locations

Route	Description	Recommended Base	Recommended Base Daily Deadhead (Miles)	Number of Buses	Recommended Change to Existing Base
400	Cumming to North Springs and Downtown	American Coach	372	5	-
408	Doraville to Johns Creek Parkway	GCT	126	4	-
410	Sugarloaf Mills to Lindbergh MARTA Station	GCT	151	3	-
411	Hamilton Mill/Mall of GA to Midtown Atlanta	GCT	316	4	Yes
412	Sugarloaf Mills to Downtown Atlanta	American Coach	240	5	Yes
413	Hamilton Mill to Downtown Atlanta	American Coach	426	5	-
416	Dacula to Downtown Atlanta	American Coach	405	5	-
418	Snellville to Downtown Atlanta	American Coach	351	5	Yes
420	West Conyers to Downtown Atlanta	PTM	260	4	-
421	West Conyers to Midtown Atlanta	PTM	188	3	-
422	Panola Rd. to Downtown Atlanta	PTM	183	3	-
423	E. Conyers/Panola Rd. to Midtown Atlanta	PTM	313	4	-
424	Stone Mountain to Downtown Atlanta	American Coach	241	4	Yes
425	E. Conyers to Downtown Atlanta	PTM	540	6	-
428	Panola Rd. to Perimeter Center	American Coach	202	3	Yes
430	McDonough to Downtown/Midtown Atlanta	PTM	384	6	-
431	Stockbridge to Midtown Atlanta	PTM	127	3	-
432	Stockbridge to Downtown Atlanta	PTM	215	5	-
440	Hampton/Jonesboro to Downtown Atlanta	PTM	358	6	-
441	Jonesboro to Midtown Atlanta	PTM	116	3	-
442	Riverdale to Downtown Atlanta	PTM	103	3	-
450	Newnan to Downtown Atlanta	PTM	392	5	-
451*	Newnan to Midtown Atlanta	PTM	25	2	-
455*	Union City to Downtown Atlanta	PTM	25	2	-
451/455	Newnan/Union City to Downtown/Midtown Atlanta	PTM	124	1	-
460	Douglasville to Downtown Atlanta	PTM	602	7	-
461/462	Douglasville to Downtown/Midtown Atlanta	PTM	368	4	-
490	Canton-Woodstock to Downtown Atlanta	American Coach	354	4	Yes
491	Woodstock to Midtown Atlanta	American Coach	253	3	Yes
TOTAL (GRTA Routes)			7,756	117	
GCT 101	I-985/SR 20 to Downtown Atlanta	American Coach	502	7	Yes
GCT 102	Indian Trail to Downtown Atlanta	American Coach	141	3	Yes
GCT 103	Sugarloaf Mills to Downtown Atlanta	American Coach	720	14	Yes
TOTAL (GCT 100-Series Routes)			1,363	24	

Note: CCT routes are not included in this analysis.

*Routes combined in PM commute. Route 451/455 uses a total of five buses, including buses used in the morning on Route 451 and 455.

DIRECT XPRESS | FINAL REPORT
Georgia Regional Transportation Authority

Figure 7-6 Sketch Planning Scenario Evaluation

	Existing Service		Option A		Option B		Option C		Option D		Option E		Option F	
	Daily Deadhead Miles	Number of Buses	Daily Deadhead Miles	Number of Buses	Daily Deadhead Miles	Number of Buses	Daily Deadhead Miles	Number of Buses	Daily Deadhead Miles	Number of Buses	Daily Deadhead Miles	Number of Buses	Daily Deadhead Miles	Number of Buses
Contract 1	5,694	81	5,875	89	8,379	117	9,123	141	9,123	141	6,741	101	6,867	105
Contract 2	1,531	19	1,885	28	1,363	24	GCT Local and Paratransit Routes				2,382	40	2,256	36
Contract 3	126	4	1,403	24										
Contract 4	2,164	37												
Total	9,515	141	9,163	141	9,123	141	9,123	141	9,123	141	9,123	141	9,123	141

DOCUMENTATION OF COST ASSUMPTIONS

Economy of Scale

This evaluation factor was intended to account for differences in operating costs between smaller and larger contracts. The theory is that smaller contracts are less able to take advantage of cost items that are difficult, if not impossible, to prorate on a strict hourly basis. For example, if the shop requires a particular tool that is important, but used infrequently, one tool could stretch over a fleet of 100 buses, but if there are only twenty buses, the cost of that tool on a per bus basis is 5 times higher. However, examination of available cost data afforded no real opportunity to place a dollar value on this cost characteristic. In fact, some evidence suggested that other factors, such as labor rates, may contravene any differences in cost items that cannot be prorated. One interpretation of available data suggests that labor rates on larger contracts are higher than on smaller contracts. But again, there is not enough data to draw any firm conclusion on this factor. Rather than drop this criterion from the evaluation it was retained simply to demonstrate that it was considered and to share the findings of the review.

Overhead

This evaluation criterion is intended to account for the fact that the GRTA contract, combined, could be serviced by a singular contractor, rather than several. Today, GRTA pays management overhead costs on 4 separate agreements (there appear to be no overhead charges on the Veolia-Route 408 contract). Three of these agreements, PTM, American Coach, and Gwinnett County Transit (Veolia), are evaluated in this review. In essence GRTA pays for the full cost of a management team in one of the contracts and a pro rata share of the management team in the other two (GCT and American Coach). The make-up of this overhead cost has two major elements: management and administrative support personnel and charges for corporate support. The evaluation, where data are available, identified the costs of this overhead and reduced it to an average amount per management/administrative FTE. For each scenario an assumed management team was created and the average cost per FTE was applied to that assumed staffing plan. Each of the two elements are described below.

Cost per Management FTE

The GCT contract provides insight into this particular issue, part of the evaluation is keying costs to the management organization. The management organization of GCT consists of:

- General Manager
- Director of Maintenance
- Director of Transportation
- Administrative Services Manager
- Safety and Training Manager
- Marketing and Customer Relations Manager
- Human Resources Specialist
- Paratransit Coordinator
- Accounting Clerk
- Administrative Assistant

- Parts Clerk

In the cost structure there are two categories that cover these FTE's and corporate support. The corporate support is called out separately in the GCT contract, however, in the PTM contract it is rolled into management salaries. To ensure the two comparisons are comparable it was also rolled into the GCT overhead calculation, which is shown below using 2014 contract costs which are the totals for GCT and GRTA:

Management Salaries and Fringe -	\$305,640
Other General and Administrative Salaries and Fringe	\$194,897
Corporate Support	\$405,810
Total:	\$906,347
<i>Cost per Overhead FTE</i>	<i>\$ 82,395</i>

Note that customer service was not included in this calculation. That is to try to make the GCT contract as compatible as possible with PTM which does not include those costs.

The PTM contract is based on a different structure than the GCT contract. GCT is essentially a turnkey contract. PTM, on the other hand, is more of a cooperative venture with GRTA. For example, GRTA does all the purchasing for the PTM contract while the contractor handles purchasing under GCT. This means the staff sizes and functions are not fully comparable, but it also means the cost per FTE for the PTM-operated service is somewhat higher as there is less administrative support included. The PTM Management staff consists of:

- General Manager
- Operations Manager
- Safety Director
- Human Resources Manager
- Maintenance Manager
- Maintenance Superintendent

PTM costs based on the FY-15 Budget are as follows:

General Manager, GM health care and corporate fee	\$238,656
Payroll and Management fee for admin	\$368,059
Workers Compensation for Admin	\$ 20,806
Total:	\$627,521
<i>Cost per overhead FTE</i>	<i>\$104,587</i>

The two average costs per overhead FTE for GCT and PTM were then averaged for a composite value of \$90,228 per FTE per year.

Management Overhead Scenarios

This value was then assigned to each FTE in a matrix where the number of management/overhead personnel were forecasted for each scenario. It was assumed that each contract would have an overhead structure similar to the current PTM or GCT contract. It was also assumed there would be one maintenance superintendent needed for each operating base location. While a similar allocation for an operations supervisor (or dispatcher) could also be argued, more typically these costs are combined with hourly operating costs and recorded as a variable cost rather than a fixed cost. That is the case with the current PTM and GCT contracts. Therefore, the costs for operations supervision for purposes of this analysis are assumed to be a variable cost, as opposed to a cost that is more tied to a particular location or a fixed cost. The staffing assumptions for each scenario are shown in the chart below.

Figure 7-7 Management Overhead Scenarios

Management and Corporate Support Assumptions									
	Scenario	Existing	A	B	C	D	E	F	
Assumed Positions									
General Manager		3	3	2	2	1	2	2	
Operations Manager		3	3	2	2	1	2	2	
Maintenance Manager		3	3	2	2	1	2	2	
Human Resources Manager		3	3	2	2	1	2	2	
Administrative support		6	6	6	6	6	4	4	
Safety and Training Manager		3	3	2	2	1	2	2	
Maintnenace Superintendent		2	3	3	3	2	3	3	
Total		23	24	19	19	13	17	17	

Management Overhead Scenario Costs

It is also important to recognize that the above represent the total costs for overhead and, in several cases, these costs are assumed to be shared between GCT and GRТА. The table below translates the above FTE’s into costs, based on the average cost per FTE, then assigns an approximate share to each agency. The agency shared costs were allocated based on revenue hours between the two operations. That share is then compared to the existing cost. If it is less it is shown as a savings, or a positive number. If the cost has increased it is shown as a negative number. The differences are also rounded for what will be displayed in the summary chart in the next section of this memo.

Figure 7-8 Management Scenario Costs

Cost per FTE (including Corp. Support)									
	Scenario	Existing	A	B	C	D	E	F	
Cost per overhead FTE		\$ 90,228	\$ 90,228	\$ 90,228	\$ 90,228	\$ 90,228	\$ 90,228	\$ 90,228	\$ 90,228
Total Cost		\$ 2,075,233	\$ 2,165,460	\$ 1,714,323	\$ 1,714,323	\$ 1,172,958	\$ 1,533,868	\$ 1,533,868	
GRTA Share	\$	\$ 1,406,081	\$ 1,259,113	\$ 807,976	\$ 918,037	\$ 628,131	\$ 864,716	\$ 864,716	
	compare to existing		\$ 146,967	\$ 598,105	\$ 488,044	\$ 777,950	\$ 541,365	\$ 541,365	
	For Chart		\$ 100,000	\$ 600,000	\$ 500,000	\$ 800,000	\$ 500,000	\$ 500,000	
GCT Share	\$	\$ 669,152	\$ 906,347	\$ 906,347	\$ 796,286	\$ 544,827	\$ 669,152	\$ 669,152	
	compare to existing		\$ (237,195)	\$ (237,195)	\$ (127,134)	\$ 124,325	\$ -	\$ -	
	For Chart		\$ (200,000)	\$ (200,000)	\$ (100,000)	\$ 100,000	\$ -	\$ -	

Deadhead Costs

One of the issues of the far flung nature of GRTA services is the amount of dead time that buses need to run between the garage and the first revenue point. System-wide deadhead time is about 40% of all miles and hours operated by the GRTA system and so represents a significant cost. Nominally, GRTA does not directly pay for deadhead time as a way to challenge contractors to find the most optimal location for an operating base. In reality, however, operators build the cost of deadhead into their costs for revenue service. The contracting scenarios create implications for either improving deadhead costs or even increasing deadhead costs.

It is not clear from contracting data exactly where contractors are, in essence, storing deadhead costs. As such it is also difficult to establish those costs as it is most certainly not the full cost of a revenue hour, but some marginal cost. GRTA recently engaged the services of experts in establishing future estimates of transit contracting costs. The consultants created what is known as an Independent Cost Estimate (ICE) which represents a reasonable estimate of what GRTA might expect as contracts are re-issued. The ICE established estimated revenue hourly rates and estimated fuel costs which are used, as illustrated below, to arrive at a marginal cost per deadhead hour. It should be emphasized that this rate cannot be confirmed as there is simply no basis for doing so. What is known is that a deadheading bus will use driver time and add miles to the bus which results in fuel costs and well as increased preventive maintenance and costs for wear items such as tires. What is assumed here is that marginal cost is 35% of the cost of the full cost per revenue hour, without fuel. Note that this yields a cost that is very close to the fully loaded hourly rate for an operator, plus about \$0.50 to \$1.00 per mile for maintenance costs (not including fuel).

FY 16 Cost per revenue hour from ICE	\$123.23
35% of revenue cost per hour	\$ 43.13
Deadhead cost per mile (GRTA system average - 26 MPH)	\$ 1.66
Fuel Cost per mile (from ICE) (diesel 10 year trend)	\$ 0.65
Total <u>assumed</u> cost per deadhead mile	\$ 2.31

For each scenario the deadhead mileages were calculated based on an assumed distribution of routes to the assumed operating bases. This process is described in detail in Section 4 Sketch Planning. Each scenario was optimized to the degree possible. The assumptions made regarding operating base location and capacity play a substantial role in this analysis. In essence, the availability of the new GRTA South Base and the assumption that a similar base could be located in the Northeast Sector render this factor relatively equal in all scenarios.

Figure 7-9 Annualized Scenario Deadhead Costs

Cost of Deadhead Miles									
GRTA									
	Scenario	Existing	A	B	C	D	E	F	
Annual Deadhead miles savings [positive] or cost (-)	No Change		89,989	100,062	100,062	100,062	100,062	100,062	100,062
Cost per deadhead mile	\$ 2.31	No Change	\$207,772	\$231,030	\$231,030	\$231,030	\$231,030	\$231,030	\$231,030
Rounded for Table - Change from existing		No Change	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Percent change from current		--	-4.4%	-4.9%	-4.9%	-4.9%	-4.9%	-4.9%	-4.9%
GCT									
Annual Deadhead miles savings [positive] or cost (-)	No Change	No Change	No Change	No Change	10,071	10,071	No Change	No Change	No Change
Cost per deadhead mile	\$ 2.31	No Change	No Change	No Change	\$ 23,253	\$ 23,253	No Change	No Change	No Change
Rounded for Table - Change from existing		No Change	No Change	No Change	\$ -	\$ -	No Change	No Change	No Change
Percent change from current		--	--	--	-0.5%	-0.5%	--	--	--

Facility Leases

The assumption for facility leases were greatly simplified compared to what could be accomplished with a fair degree of long term speculation. This analysis assumes the three current operational facilities, namely the PTM operating base (which will be replaced by a new facility that is nearby, presently under construction by GRTA), a hypothetical replacement for the American Coach facility, and the Gwinnett County Transit Facility. The costs reflected in the evaluation summary table in the next section accrue to GCT based on whether, or not, GRTA is utilizing part of the GCT facility for operations and therefore supporting a pro rata share of the lease cost, based on a revenue hours allocation. This impacts the results for options A, B, and C. In options E and F, the options are very similar to the current situation. So it is assumed the allocation of costs would be similar to today.

From GRTA’s perspective in Options A, B, C, E and F, the lack of access to a base in the NE sector might mean GRTA has to pay for a hypothetical base at a cost similar to the GCT base. Only in Option D, where it is assumed that GRTA and GCT co-locate all operations in a hypothetical base are there slight potential advantages to both agencies.

Given the relatively short duration of the lease for the two facilities currently used by PTM, no facility lease costs were assumed for the base in the south area. Further, it was assumed that the base operating costs, (utilities, custodial, security, etc.) would be similar to, if not less than the present situation. Given that the analysis is comparative, not seeking to establish absolute costs, these costs were assumed to be equal under all scenarios.

CNG Fueling

Today, the four active buses deployed on GRTA route 408 use CNG as their fuel. These buses operate from the GCT base and, therefore, have access to the Gwinnett County CNG fueling station located at that operating base that is also used by other GCT buses. If these buses are moved away from the GCT base there is a question about where they would fuel. Another possibility is that the buses are replaced early or traded to GCT. The analysis avoids making any cost assumptions that may result from whatever decision is reached and simply add a red square

to the analysis to indicate that there may be a cost concern based on uncertainty around fueling the buses deployed on Route 408, Route 410 and backup for route 412.

EVALUATION SUMMARY

The evaluation summary is depicted in the table below. Generally the colors represent:

- positive results, shades of green
- negative results, shades of red
- neutral results, white (N/C to + means leaning slightly positive)

The neutral results will vary based on the degree of collaboration undertaken by GRTA and GCT. The more engagement in mutual interests, the greater the likelihood these will turn from neutral to positive.

Figure 7-10 Evaluation Summary

Scenario	Existing	A	B	C	D	E	F
GRTA Criteria							
Financial							
Economy of Scale	N/C						
Overhead	N/C	\$100K	\$600k	\$500k	\$800K	\$500k	\$500k
Facility Leases	(\$1,400K)	(\$1,400K)	(\$1,400K)	(\$1,400K)	N/C to +	(\$1,400K)	(\$1,400K)
CNG Fueling	N/C					N/C	
Deadhead	N/C	\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Total Impact (Annual)	(\$1,400K)	(\$1,100K)	(\$600K)	(\$700K)	\$1,000K	(\$700K)	(\$700K)
Other							
Administrative Burden	N/C						
Reporting Uniformity	N/C						
Flexibility	N/C						
Federal and State Funding	N/C	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
GCT Criteria							
Financial							
Economy of Scale	N/C					N/C	N/C
Overhead	N/C	(\$200K)	(\$200K)	(\$100K)	\$100K	N/C	N/C
Facility Leases	N/C	(\$200K)	(\$200K)	(\$200K)	N/C to +	N/C	N/C
CNG Fueling	N/C	N/C	N/C	N/C	N/C	N/C	N/C
Deadhead	N/C	N/C	N/C	N/C	N/C to +	N/C	N/C
Total Impact (Annual)	N/C	(\$400K)	(\$400K)	(\$300K)	\$100K	N/C	N/C
Other							
Administrative Burden	N/C					N/C	N/C
Reporting Uniformity	N/C	N/C	N/C			N/C	N/C
Flexibility	N/C	N/C	N/C			N/C	N/C
Federal and State Funding	N/C	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

Key Observations

The historical relationship between GCT and GRTA is beneficial to both parties. Subject to provision of a presently unknown new maintenance base facility in the NE sector of GRTA's service area, the cooperative relationship between the two parties is key to holding down transit provision costs in this part of the Atlanta Metro area. The cost of non-cooperation is relatively high with few positive benefits to offset the negatives.

It appears that Scenario D would be the potentially most advantageous scenario to both GRTA and GCT. The basic contract concept: GRTA and GCT services (including local and paratransit) would be jointly procured and administrated by a single contractor. To achieve the maximum benefit, the contractor would operate GCT's service and GRTA's NE sector service from one base facility located in Gwinnett County (e.g., expanding GCT's current leased facility by adding adjacent property, if available). Precisely, how that would be structured contractually needs to be explored further but the essential kernel is a single contractor would have one management structure and hold separate contracts with GRTA and GCT. In this way many of the overhead costs can be shared between the parties which decreases overall costs to both agencies.

While there may be benefit in GRTA and GCT jointly exploring the feasibility of combining all NE sector Xpress and Express as well as local and paratransit services and operating them from a singular base facility, this poses a certain level of risk whether a contractor will actually propose to provide service under such a scenario. In a very practical sense the most significant risk to GRTA and GCT is if a contractor does not propose a centrally located operating base in the NE Sector and a central management team that administers the two contracts with a result of higher than expected cost proposals. The risk is then the administrative burden to extend the existing contracts, reconsider the scope of work for the solicitation, and reissue an RFP.

Other Observations and Potential Benefits

Base Capacity – This is one of the more significant issues and also the issue that engenders the most significant speculation in this analysis. As indicated above, the present GCT base was acquired by Veolia some years ago. At that time Veolia invested in significant site improvements to make the property suitable as a transit operation and maintenance facility. Most likely the investment in these tenant improvements is now fully amortized offering a base with potentially lower lease/operating cost. At the same time, the base does not currently have enough storage capacity to meet all the fleet needs (*Xpress*, *Express*, GCT local, and paratransit) in the NE sector. However, it may have adequate maintenance capacity and with the addition of what appears to be nearby available property to expand storage capacity, this site may be a suitable operating base with fairly minimal need to invest heavily in tenant improvements.

The American Coach base may also prove to be a facility that may have sufficient capacity and already amortized improvements to accommodate the full fleet and operational needs of GRTA and GCT services in the NE sector. Again, there may be a need to improve the storage space on the site and property appears to be available in the vicinity to accommodate that need.

In the long range, as GRTA has invested in base capacity in the south end, it would make sense for GRTA and GCT, perhaps even CCTA, to consider the long term needs for a transit operating base in the north end of the Atlanta Metro region. The concept, similar to the south end, would be to make a public investment in a maintenance and operating base(s) that would be made available to contractors from which to operate public transit services. In many respects this levels the playing field between various service contractors and creates greater competition in the marketplace.

Under today's situation, contractors like Veolia and American Coach have an advantage in that they already have established and fully amortized maintenance and operating bases. A new contractor is at a distinct competitive disadvantage if they must find, acquire, and improve a new site or acquire an existing site from a competitor. If the base is provided by the agency (agencies) this eliminates that competitive barrier. It also ensures that deadhead costs will be equalized among all the contractors proposing to operate service, which is not the case today. Given the projected growth in the northern metro area and the now more known transit operational and maintenance needs (as opposed to ten years ago), it may now make sense to launch a study of maintenance/operating base needs, the opportunities available, and the potential costs to meet those needs through construction of a publically owned facility.

Administration - The summary graphic implies other potential benefits that might accrue, particularly to GRTA, in a contracting scenario where the administrative burden is shifted. Today, for example, GRTA staff spends a great deal of time purchasing parts and materials for the PTM contract, yet very little for the American Coach or the GCT contract. A consolidated contract that is structured more like the GCT or American Coach contracts would allow that resource to be refocused into service quality monitoring, performance monitoring, marketing, and collaboration particularly with private employers in deployment of transportation demand management strategies as a way to build ridership.

Human Resources – This is another form of administrative streamlining that could occur on the contractor's part. If there was one contractor for all GRTA (except Cobb County) and GCT services, the contractor would most likely consolidate human resource functions such as recruiting, screening, interviewing, training, safety administration, and placement of employees. Because of the much larger base of operation this could become a centralized, efficient organizational element to ensure each operating facility maintains full staffing. The potential exists to also optimize the use of employees especially those in a fill-in or substitute-type functions, such as for vacations or sick leave. This approach could be utilized for mechanics, operators, and supervisors, thus optimizing the deployment of employees and further driving down overhead cost associated with each employee. Further, in the area of supervision, common areas such as Downtown and Midtown Atlanta could utilize the same on-site supervisors for all services, thus reducing duplication.

Management Information - A related, but a somewhat different, advantage would be in terms of data availability. Today, GRTA staff receives different levels and formats of data from each of the five contracts administered. Consolidating to a single contract would allow GRTA to establish uniform reporting requirements. The information flow would be very useful in monitoring system health and performance as well as considering system improvements and modifications. This information could also be of use in improving system on-time performance. For GCT the arrangement of a singular contractor may require new thought be given to framing what and how information flows to GCT through a jointly administered system. While it is unlikely there will be any loss of fidelity in terms of currently available information, the transition will require staff to redefine needs and closely monitor early reports to ensure the available information meets GCT's needs. At the same time, this could offer GCT an opportunity to enhance data reporting to include items not presently available.

Regional Coordination and Flexibility -- Today services in the northern part of GRTA's service area are growing faster than those in the south. If ARC forecasts of population and employment growth are realized, GRTA will need to provide more service in the northern areas. This will require the ability for GRTA to be "light on its feet" in terms of responding to the growth

which is likely to occur in an uneven manner. This may indicate a need to be able to quickly add buses, or move buses from garage to garage to provide new opportunities or to support ridership growth. A consolidated contract will enhance that capability making it much simpler to add or move resources between operating bases. The consolidation of GCT and GRTA services to a single contractor provides additional benefits in terms of both agencies having additional flexibility to address future needs whether in local or regional transit services. Centralized management also implies that a contractor is much less concerned with the location of where a service is being provided. If a bus, or operator, moves from one garage to another, the contractor continues to amortize overhead costs over the same number of service units. Therefore, the overall cost structure would tend to be much less sensitive to changes in service levels between garages. This is equally true of GCT and GRTA service levels and locations.

Federal and State Funding – There has been conversation within this process that a change in how the contracts are administered might trigger a change in how Federal funds are applied. Presently, FTA funds are applied to services both through capital cost of contracting provisions and preventive maintenance provisions. The FTA has established guidelines for the percentage of eligible costs that FTA will participate in based on the form of contracting. For example:

1. Service Contract (contractor provides maintenance and transit service; recipient provides vehicles) 40 percent.
2. Service Contract (contractor provides transit service only; recipient provides vehicles and maintenance) 0 percent.
3. Vehicle Maintenance Contract (contractor provides maintenance; recipient provides vehicles and transit service) 100 percent.
4. Vehicle Lease Contract (contractor provides vehicles; recipient provides maintenance and transit service) 100 percent.
5. Maintenance/Lease Contract (contractor provides vehicles and maintenance; recipient provides transit service) 100 percent.
6. Turnkey Contract (contractor provides vehicles, maintenance, and transit service) 50 percent.
7. Vehicle/Service Contract (contractor provides vehicles and transit service; recipient provides maintenance) 10 percent.

Under the current system, it appears GCT is eligible to federally fund (at an 80% Federal/20% local match rate) up to 40% of eligible capital costs, such as the amortized costs of the GCT maintenance facility. It must be emphasized these are guidelines and that different situations may be provided different percentage eligibility if the recipient works with FTA. It does not appear that the current forms of contracting being considered here would make a substantial difference in this funding situation. However, the cost accounting to establish which of the two agencies are eligible for the percentage of capital costs for an operating base, as an example, could change the overall amount of Federal funds available to each individual agency.

What could trigger a substantial change would be something peripherally discussed but not a central part of this discussion is if Gwinnett County and GRTA were to decide to invest in construction of a joint operating based that was owned and developed by one, or both, entities. That event would make a substantial difference in what costs could be used to capture Federal funds through capital cost of contracting provisions.

In the meantime, the twist in Federal funding should be considered in the process if GCT and GRTA decide to move ahead in a fully consolidated contract. This may even be a factor in how

contractors are required to disaggregate costs in response to an RFP. If, for example, American Coach were to continue the apparent practice of not allocating facility lease costs to the service contract and they were chosen as the contractor, it is doubtful capital cost of contracting could be applied to the cost of the operating base. On the other hand, in neither case for GCT or GRTA does it appear likely that either agency would be unable to capture the same amount of FTA funds, it may just need to be accomplished through a different funding category such as preventive maintenance. In any event, as noted in the evaluation summary, this is an unknown factor until more is known about how exactly GRTA and GCT decide to proceed, the details of a successful contractor's financial proposal, the interpretation of the FTA about those details and how costs are allocated between agencies.

Fare Simplification – The contractual structure does not, in and of itself, facilitate a change to fares. However, a closer working relationship between GCT, GRTA and the contractor could lead to an initiative to examine the potential to unify and simplify fare payment, at least on a regional basis. It is unclear what benefit(s) such an initiative may create, but some of those might include improved farebox recovery, increased ridership, and better utilization of overall resources.

Advancement of Technology Applications – If GRTA and GCT move to jointly procure services, the fleet size and contracting environment are tailor-made for contractors to propose advancements in technology applications designed to make service more usable and attractive for customers and more efficient for the funding agencies. The potential size of a combined GRTA/GCT operating contract will attract the attention of the largest operating contractors in the US. These contractors are very well versed and experienced in acquiring and applying technology in transit operations. Not only are they experienced, but being unbound by barriers present in the public environment, they are often able to bring technological advancements to implementation in a much more expeditious and cost effective manner than their public counterparts. It is recommended that GRTA and GCT allow contractors to propose, as options, transit ITS applications, they feel could improve service to customers as well as offer enhanced monitoring, data collection, and operating efficiency. The agencies might consider adding a prioritized list of interests in terms of applications of particular interest, such as real time customer information for transit and paratransit service (this would also include automatic vehicle location), automatic passenger counters, Google Transit, advanced maintenance monitoring software, etc.