Ashley Nilson
GSC 512 – Management & Cost Accounting
Week 3 Prework

Implementing ABC at Tidal Cloud Inc

Tidal Cloud Inc (Tidal) is a hosting provider that offers both managed hosting using physical servers as well as cloud-based hosting with two unique service offerings: public cloud and private cloud (Marea Cloud). Public cloud uses shared cloud servers to manage data, while Marea Cloud offers private servers for each client, a benefit for clients that need to ensure the privacy and security of their data. This company is facing pressure from its investors to increase profit margins as a means to start creating an exit strategy for the company. The end goal is to demonstrate the best profitability they can, to make the most out of selling the company. To help with this process Tidal began heavily investing in cloud infrastructure as that technology became increasingly popular, but their competitors are lowering prices on public cloud services at a time when Tidal's profit margins on those services are already tight. However, they've been able to increase pricing on their private cloud hosting service, Marea Cloud, without a drop in customer base. The managed hosting service is essentially in a "set it and forget it" status, where their customer base is stable provided nothing goes wrong, and they're not looking to increase that service due to concerns around resiliency.

According to Tidal's existing simple cost system, which allocates a percentage of indirect budget expenses to each service according to the number of virtual servers in use at the end of each month per service, while also accounting for direct costs in the form of equipment leasing. Under that cost system, the company is operating at a 2% profit margin, managed hosting operating at a 3% profit margin, public hosting operating at a loss with -5.6% and Marea Cloud having the best profit margin of 13.7% (see Appendix I). There are two main issues with this simplified costing method, though. First, the managed services don't actually use virtual servers and so their operating expenses have to be assumed. Second, allocation of budget is based on virtual machines, but in the public cloud service, virtual machines may be shared while in the private model they are always individual to the company. As such, allocating based on virtual machine does not account for actual expenses.

By using Activity Based Costing, Tidal would be able to identify true operating costs for each service and get a more accurate picture of their profit margins for each service. Appendix II shows what the activity rate is for each cost driver accounted for within the previously mass-allocated indirect costs, as well as the source data for those rates which shows how many "units" of each cost driver the different products used. When multiplying the activity rates by the units of each rate used per product, you get the ABC method of costing, shown in Appendix III. Using this method, the profit margins look very different, with managed hosting operating at a 14.03% profit margin, public cloud operating with a 5.3% profit margin, and Marea Cloud operating at a loss of 11.36%. Using this information, Tidal can make more informed business decisions since what was previously shown as their primary profit driver, Marea Cloud, is actually their loss leader.

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Appendix I

Product Profitability for Month Ended June 30, 2016				
	Company	**Managed Hosting**	**Public Cloud**	**Marea Cloud**
Sales	*$950,000*	*$191,900*	*$469,300*	*$ 288,800*
Equipment Leasing	$(237,500)	$(47,500)	$(114,000)	$ (76,000)
Allocated Indirect Costs	$(693,500)	$(138,700)	$(381,425)	$ (173,375)
Operating profit before SG&A	$19,000	$5,700	$(26,125)	$39,425
Profit Margin	**2.0%**	**3.0%**	**-5.6%**	**13.7%**

Appendix II

	Activity Rate	Unit
Provide Computing Resources	$6.33	VM
Process Payments	$0.02	Dollar Earned
Onboard New Customers	$72.44	Hour
Support Existing Customers	$103.61	Help Ticket
Build & Improve Products	$54.15	Code Commit
Advertise & Promote	$855.00	Percent of Spending

			Budgeted Quantity of Activity Driver			
Core Activities	**Budgeted**	**Activity Driver (per month)**	**Company**	**Managed Hosting**	**Public Cloud**	**Marea Cloud**
Provide Computing Resources	$228,000	Number of VMs at month end	36,000	7,200	19,800	9,000
Process Payments	$19,000	$ Sales	$950,000	$191,900	$469,300	$288,800
Onboard New Customers	$86,925	Hours spent onboarding new VMs	1,200	60	420	720
Support Existing Customers	$165,775	Help tickets addressed	1,600	480	640	480
Build & Improve Products	$108,300	Number of code commits	2,000	100	800	1,100
Advertise & Promote	$85,500	Targeted ratio of spending	100	10	65	25

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Appendix III

Cost Drivers	Managed Hosting	Public Cloud	Marea Cloud	Company
Equipment Leasing (Direct)	$(47,500)	$(114,000)	$(76,000)	$(237,500)
Provide Computing Resources	$ (45,600.00)	$(125,400.00)	$(57,000.00)	$(228,000)
Process Payments	$(3,838.00)	$(9,386.00)	$(5,776.00)	$(19,000)
Onboard New Customers	$(4,346.25)	$(30,423.75)	$(52,155.00)	$(86,925)
Support Existing Customers	$(49,732.50)	$(66,310.00)	$(49,732.50)	$(165,775)
Build & Improve Products	$(5,415.00)	$(43,320.00)	$(59,565.00)	$(108,300)
Advertise & Promote	$(8,550.00)	$(55,575.00)	$(21,375.00)	$(85,500)
Total	$(164,982)	$(444,415)	$(321,604)	$(931,000)

	Managed Hosting	Public Cloud	Marea Cloud	Company
Sales	$191,900	$469,300	$288,800	**$950,000**
Operating profit	**$26,918**	**$24,885**	**$(32,804)**	**$19,000**
Profit margin	14.03%	5.30%	-11.36%	**2.00%**