

How to Easily **TRIPLE** Your Center's Profit Using Medusa

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To be successful in any business, you need to be smart and spend your money and time wisely. This is especially prevalent in a business center as you will come across important decisions each day.

The following article is very informative and, if read completely, will teach you how to ensure you are making money using a smart, powerful tool: **MEDUSA**. Please read the following in its entirety as it could be the difference between success and failure in an extremely competitive industry.

Most people feel that an essential part of a business is the ability to receive fast, consistent bandwidth speeds. However, are businesses ready to pay premiums for consistent, rapid internet speeds? Paul Carter, Senior Vice President of Office Links, stated during his recent presentation at the annual New York Local Member Network meeting that business centers that give away their services including internet should not be left wondering why after a few years there is no additional financial resources remaining to re-invest in your business or for that matter, open a another location.

Many operators are of the mindset that it's ok to give away their services as long as they are filling seats. However, when this is carried out, a huge value is lost. In Figure 1, you can see that 140 units were charged \$120 for internet. In Figure 2, you see that 120 units were charged \$110 for internet. By this **discount of just \$10** and by providing just **20 units of free internet**, \$86,400 will be forfeited in just 1 year. In 10 years, the opportunity cost is an astounding \$936,000 of lost revenue. (See Figure 2)

As a quick note, most operators don't realize that by simply adding additional bandwidth every 2 or 3 years to your center without charging any additional fees to the tenants through service groups (described below), it's equivalent to giving away free internet and free services.

Figure 1

Service	Quantity Free	Quantity Charged	Unit price	Monthly	Service	Quantity Free
Meeting Room	40	60	\$100	\$6,000	Meeting Room	40
Meeting Room	40	40	\$75	\$3,000	Meeting Room	40
Meeting Room	0	20	\$50	\$1,000	Meeting Room	0
Telephone Ans	20	40	\$100	\$4,000	Telephone Ans	10
Internet	20	140	\$120	\$16,800	Internet	20
Handset	20	140	\$120	\$16,800	Handset	20
Set up fees	20	30	\$200	\$6,000	Set up fees	20
Coffee Service	20	140	\$30	\$4,200	Coffee	20
Total Monthly Income				\$59,800	Total Monthly Income	
Total Yearly Income				\$1,339,200	Total Yearly Income	
Total 10 Year Income				\$14,478,000	Total 10 Year Income	

The Difference between the two Center 1 *	\$ -
The Difference between the two Center 10	\$ -

Figure 2

Service	Quantity Free	Quantity Charged	Unit price	Monthly	Service	Quantity Free
Heating Room	40	40	\$100	\$5,000	Heating Room	40
Heating Room	40	40	\$75	\$3,000	Heating Room	40
Heating Room	0	20	\$50	\$1,000	Heating Room	0
Telephone Ans	10	40	\$100	\$4,000	Telephone Ans	10
Internet	40	120	\$110	\$13,200	Internet	30
Handset	20	140	\$120	\$16,800	Handset	20
Set up fees	20	30	\$200	\$6,000	Set up fees	20
Coffee Service	20	140	\$30	\$4,200	Coffee	20
Total Monthly Income				\$84,300	Total Monthly Income	
Total Yearly Income				\$1,011,600	Total Yearly Income	
Total 10 Year Income				\$10,116,000	Total 10 Year Income	

The Difference between the two Center 1 *	\$ (86,400)
The Difference between the two Center 10	\$ (936,000)

There are many different types of businesses, each with different needs in regards to bandwidth. For example, a small startup business that needs to send an occasional email throughout the day would need minimal bandwidth and would have a lower expectation in terms of reliability. However, for most companies, reliable, and fast bandwidth is critical.

(Scenario 1) In a business center without Medusa, there will be no traffic shaping and therefore anyone can use all of the bandwidth if they so desire. Thus, a client's speed in this type of business center would vary greatly from time to time and at times, the available bandwidth to the end user could even become less than that of a dial up connection.

(Scenario 2) If a center has Medusa, but is using Medusa without service groups (explained in section 1B), then tenants will be using the bandwidth on a first come first serve basis. While this scenario will ensure that one person does not utilize all the available bandwidth, it does not ensure that the high-demand tenants will receive the correct a priority in terms of bandwidth. A good analogy would be to compare this scenario to Southwest Airlines. In the case of Southwest, you are most likely guaranteed to get a seat on the plane, but since there is not separation in prices and classes (economy, business, first), you may end up in the middle seat next to the toilets in the back of the plane.

(Scenario 3) The best option for a tenant is to be in a center with Medusa that has service groups and for the tenant to be placed in the appropriate group. This would provide the tenant with the ability to be guaranteed a certain level of bandwidth and priority. As mentioned earlier, reliable bandwidth is essential to most businesses and therefore, the customer is willing to accept a higher cost in return for a higher level of service or guaranteed service levels.

Medusa is an appliance that carries numerous benefits including security, ability to perform complex IT tasks with the click of a mouse, and the ability to simplify the process of combining both voice and data into one network. Medusa will save you money because you can avoid having your high-priced IT professionals to perform remedial tasks such as adding a public IP. Aside from this one might ask: "What is it about Medusa that can generate your business thousands of dollars every month?"

The answer is in the ability you have as a center manager to offer bandwidth to your tenants. When Medusa is used correctly, you are guaranteed to make money and you will keep your tenants happy by providing the internet speed and reliability that they need to thrive in their business.

I. Case Study #1: Tripling Your Revenue Using Service Groups & Bandwidth Slices

Let's first take a typical example of a center that has the following:

- 50 tenants
- 10 megabit Pipe costing the center \$1000/month
- Center is currently charging \$50/month for internet to their tenants

The beauty of Medusa is that you are now the internet service provider (ISP). You control the amount of bandwidth that the tenants receive. You can limit or even add bandwidth to a tenant's network. Given these figures, the center is making \$2500 revenue and \$1500 profit per month. Where Revenue = # of Tenants * (Monthly cost) and Profit = Revenue - Expenses 50 tenants * \$50/month = \$2500/month - \$1000/month = \$1500 Profit

A. Delegating a T1 Line Using the Bandwidth Slice Option in Medusa:

Most every center on average will have at least two tenants that will require their own T1 line. A T1 line provides 1.5 megabits per second upload and download. With Medusa and creating a bandwidth slice you can delegate a tenant their very own T1 line. Most carriers charge approximately \$500/month for a T1 line in addition to very expensive installation fees, binding contracts, and the added hassle of managing a router. Tenants in your center would jump at the option to purchase a T1 from you without those costs. By charging a tenant \$450/month for a T1, the tenant would most definitely be getting their money's worth. If two people require a T1 slice that leaves 48 tenants remaining and generally 7 megabits left (10 megabit pipe – 2 T1's at 1.5 megabits each).

B. Optimizing the Use of Service Groups in Medusa:

For the remaining tenants in Case Study #1, it is standard to offer them a choice of three different service groups and they are as follows:

1. Entry (\$50/month)
2. Medium (\$100/month)
3. High (\$150/month) (See figure 3)

Figure 3

THE Group	IS ROLLED Y/N	WITH QOS	QUOTA (MB)	Note	LIMIT
Entry Level 250 k	Fiber 10G	Bronze	0	\$50/month	start Update Delete
High Level 1480 k	Fiber 10G	Bronze	0	\$150/month	start Update Delete
Medium Level 750 k	Fiber 10G	Bronze	0	\$100/month	start Update Delete
Any Route	Bronze				Add

The entry group for simplicity sake should cost \$50 and should have minimal bandwidth speeds. Now most people would probably ask the following: "Wouldn't tenants become angry if they had to pay for minimal bandwidth?"

The answer here is that they won't be angry if the center includes this price in the rent of their office. The key idea here is to sell them on the higher plans and the way to do that is to have them come to you for the upgrade in bandwidth. The method used should be

to keep the entry group at a low bandwidth level. This might be fine for a few tenants, who occasionally browse the web and send emails, and that is ok. However, most tenants need more download speeds (if they are downloading files) and or upload speeds (if they are uploading files consistently to ftp for example). These tenants will need to upgrade their plan and this is when you start to make additional revenue.

From my experience, about 20% of tenants require "entry", 60% require a "medium" plan and the rest would prefer a "high" bandwidth plan. Bandwidth levels are displayed in Medusa in packets per second (approximately 90 packets/sec = 1 mbps) (See Figure 4).

Figure 4. (Shows an example of an entry level service group limit)

If 10 tenants are on the entry bandwidth plan, 30 go on the medium plan and 8 go on the high plan your profit breaks down as shown below:

- Entry: 10 tenants * \$50 = \$500/month
- Medium: 30 tenants * \$100 = \$3000/month
- High: 8 tenants * \$150 = \$1200/month (See Figure 5).

Figure 5. (From service group members page. To change a service group click on the drop down next to the suite you need to change)

Suite	Group	Note	Update	Delete
1st Media Consulting	Medium Level 750 k			
company a	Entry Level 250 k			
company b	Entry Level 250 k			
company c	Medium Level 750 k			
company d	Entry Level 250 k			
company e	Medium Level 750 k			
company f	Medium Level 750 k			
company g	Entry Level 250 k			
company h	Medium Level 750 k			
company i	Entry Level 250 k			
company j	Medium Level 750 k			
company k	Medium Level 750 k			
company l	Entry Level 250 k			
company m	Entry Level 250 k			
company n	Medium Level 750 k			
company o	Entry Level 250 k			
company p	High Level 1480 k			
company q	High Level 1480 k			
company r	Medium Level 750 k			
company s	High Level 1480 k			
company t	Entry Level 250 k			
company u	Medium Level 750 k			
company v	High Level 1480 k			
company w	Entry Level 250 k			
company x	Medium Level 750 k			
company y	High Level 1480 k			
company z	Entry Level 250 k			
company R	Entry Level 250 k			

Total: \$4700 (Total revenue from service groups) + \$900 (revenue from the two T1's) - \$1000

(cost of the 10 megabit pipe) = \$4600 Profit
 This example of a typical business center has shown how incredibly easy it is to triple your profits.

II. Case Study #2: Generating Revenue Using Bandwidth Quotas

Cellular phone companies make huge profits by charging overages to their customers. Medusa allows a business center to make profits by using this model as well. In each vlan there is a section called “Quota” which is the amount of bandwidth that a client can use without being charged an overage.

The other items of note are as follows:

- Fixed monthly charge-Amount the tenant will pay if they stay under their quota
- Over quota usage charge-Amount the tenant will pay per MB over the quota
- Below quota usage charge-Discount amount the tenant will receive if under the quota (See Figure 6).

Figure 6.
 (Shows monthly quota of 1,000 MB, over quota usage charge of 1 cent per mb and fixed monthly charge of \$75)



A typical example of a business center would want to charge \$75/month (fixed monthly charge) for internet with the desire to charge overages to their heavy users. A standard quota could be 1000 MB or a little less than 1 gigabyte, and a standard overage per megabyte

is approximately 1 cent. So let's say a heavy user uses 10,000 megabytes in a month. Their overage bill would be (Overage – Quota) * Usage Charge or (10,000 - 1,000) * .01 = \$90/month (See Figure 6). So \$90/month plus the \$75 fixed monthly charge would mean that the tenant would owe \$165/month. That would be an extra \$90/month for just this one tenant by simply adding a couple changes to Medusa. This calculation is done by Medusa as well and can be accessed by going to Reports>Usage and Billing>Select a Month.

Several large companies use a variation of this billing model and have profited **substantially**. For example, Time Warner (in their Texas locations), and AT&T (nationwide on all 3g plans beginning July, 2010) charge overages when customers surpass their given quota.

By using the quota system in conjunction with services groups (mentioned in case study 1) your center's revenue possibilities are endless!

III. Best Practices for Creating Service Groups

A key part to this revenue process is figuring out how much to limit your tenants with regard to bandwidth. A good idea is to go to Reports>Traffic Graphs>All Ports and see how much bandwidth tenants utilizing by noting the uppermost value of the Y axis (See Figure 5). Then you can set the entry level at less than this level and this will most likely make your tenants wanting more bandwidth.

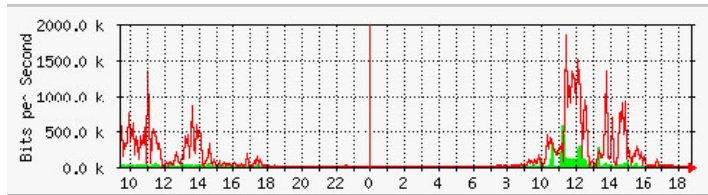
A good example for a 5 megabit pipe would be the following:

- Entry: 256 k/256k burst
- Medium: 750 k/1500k burst
- High: 1500 k/2500k burst (See Figure 7)

Definition:

Burst – The amount of bandwidth that is used when a program or action is initiated that uses bandwidth. This usage generally goes up right away then after a few seconds comes back down. A burst is not guaranteed bandwidth; the bandwidth will only be used if available (See Section VI).

Figure 7. (This particular company is maxing out at about 1750k download speeds and is consistent at around 1000k)



Note: In this example we have delegated tenants in the high service group 1500 k which is the same as 1.5 mbps upload and download and is equivalent to a shared T1 connection. A T1 line is a corporate grade internet line that is highly regarded by the business community.

The internet speed numbers above will vary depending on the number of users in each service group, the speed of your pipe, and how much bandwidth your tenants normally use. The best way is to refer to your client's traffic graphs and determine speeds that will leave your tenants wanting more bandwidth.

IV. Medusa: Saving you money in other ways

A. "What if my ISP goes out for an extended period of time?"

This concern is very real and should not be taken lightly. If this were to occur, your center would most likely incur a lot of angry tenants and definite cancellations. Medusa, however, allows the operator to easily bring in a backup line. For example if you have a bonded T1 and then decide to get a new DSL line, Medusa can setup the DSL line as a failover and if the T1 were to go out the DSL line would kick in immediately and your tenants would continue to be on the internet with no interruption. Medusa would again here have the potential to save you thousands of dollars in lost revenue.

In addition to Medusa failing over your ISP lines, it also performs load balancing. Load balancing balances the use of two or more internet lines to ensure that one line does not get overused. Without load balancing, one line would most likely get used to its maximum and tenants

would experience internet performance problems. A center with Medusa's load balancing would mean that unneeded stress is not added to their internet lines.

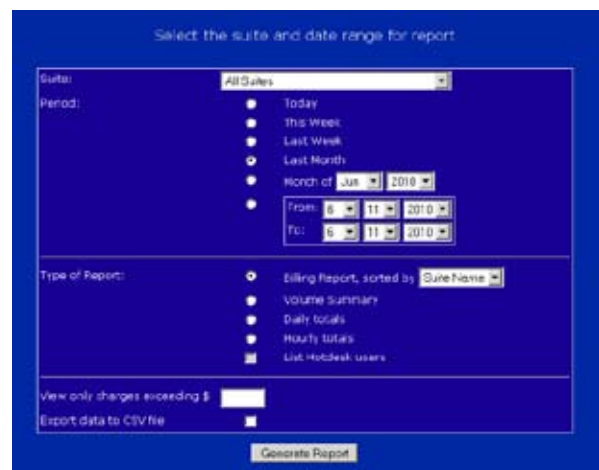
B. Bandwidth Reallocation

Another way Medusa saves you money is that when bandwidth is not used it gets reallocated back into your bandwidth pool. Let's say a service group or a slice is allocated 1 megabit. If that entire amount of bandwidth is not being used then other groups will have access to it, as the remaining part of the 1 megabit is redistributed into your bandwidth share amongst your other tenants.

C. Compatibility with Accounting Software

Another time/money saving feature in Medusa is the ability to export your reports to a CSV file and easily upload this data into your Accounting software such as QuickBooks or Yardi. To do this go to Reports>Usage and Billing select the report you would like and click the checkbox "Export Data to CSV file" (See Figure 8).

Figure 8



There are numerous ways for a business center to make money using Medusa. Some other ways include selling IP addresses to tenants, selling VPN accounts, creating wifi accounts and the ability to track wireless usage.

For more information on these please contact one of our numerous project managers on staff at ETS (877-387-4824) or email us at pm@etsonline.com.

V. New Feature in Medusa 1.9: Expandable Slices

Medusa is consistently coming up with new ways for centers to generate revenue. One of which is the introduction of expandable slices in the new rollout of Medusa 1.9. Expandable slices are simply a guarantee of bandwidth with an added bonus. You can actually have the ability receive more bandwidth than is allocated in your slice as long as another tenant is not using all of their guaranteed bandwidth. As a center manager you can make additional revenue by selling this slice as a premium to a normal slice.

VI. FAQ

(A MUST READ FOR EVERY MEDUSA USER)

Q: What if my tenants want more bandwidth than I have to offer?

A: This is the beauty of Medusa. You can add additional lines of internet to your existing line to accommodate more and more users. Your goal should be to sell as much as you can as every sale means more profit for your center.

Q: What should I say to existing clients if they wonder why we are now charging for internet?

A: If tenant is not willing to pay for internet services or is looking for the lowest prices, they should be placed in your lowest service group. This will minimize your opportunity cost and the financial loss on your internet service.

Q: What is if a tenant is willing to pay for internet, but is questioning why they have to pay more to get access to the higher levels of bandwidth that previously free?

A: In this particular scenario, you need to explain to the tenant that prior to Medusa there was no guarantee in terms of consistency of bandwidth. In other words, the tenant may have been able to achieve speeds of up to 10

mbs ON one day while the next day the speed was as slow as a dial-up connection. Even though the tenant may not be able to achieve speeds of 10 mbs at their current price point, the tenant can be rest assured that their internet speed will remain consistent within their chosen service level and will not drop to dial-up speeds. Thus, the question to ask your tenant is it better to have access to 10 mbs with no guarantees and the possibility of running at dial-up speeds during key times of the day or better to have lower, yet consistent internet performance. The price you are offering them is more than likely cheaper than what they can get if they brought in their own line to your center. In addition, the clients are benefiting because they are not charged setup fees, additional contracts, or hidden costs.

Q: What is an advantage of adding burst to a service group?

A: A burst, which is typically double the size of the upload and download limits can be very useful for users of a given service group. When a tenant is part of a service group with burst, they are able to receive bandwidth above and beyond the given limits. This, however, is contingent on the amount of bandwidth available. Let's say that a tenant in a 750k download and 1.5mbps burst service group, opens a web browser at off peak hours (2:00 AM). He wants to quickly access content on a webpage with several videos. The speed of the site would most likely be at their service group's burst speed of 1.5 mbps, instead of 750k because at 2AM there would be plenty of bandwidth available. This user would be receiving T1 speeds instead of DSL speed. The benefit for a business center to use burst includes the ability to sell their bandwidth using the speed that is shown for the burst. For example, if a service group includes 1mbps down and 2mbps burst, the business center can promote their internet similar to how some ISP's do. **ISP's promote their internet by telling their clients that they may get speeds up to a certain amount (the burst).** This concept is currently used by many cable broadband providers that provide shared bandwidth plans.