Managing Bandwidth – The Context Based approach

Internet forms the backbone of communication to our customers, vendors and is key to any business success. But internet also provides access to information to employees, which may not be related to your business and may even cause legal liablities.

It is important that an enterprise has complete control over its valuable resources which also includes bandwidth. When an enterprise does not have control over bandwidth, it may face the following problems

- Business applications getting affected as non-business applications use maximum bandwidth

- Users download audio/video files which consumes a lot of bandwidth

- Users browse non-productive sites which reduces the bandwidth required for business applications

- No visibility in the bandwidth used and hence do not know what to control

- Unable to identify users who take maximum bandwidth

- Unable to allocate bandwidth to users/applications

- Unable to limit bandwidth based on category of a website

It is seen that the traffic surges by about 50% on days of a cricket match in India.

GajShield Bandwidth Management – Next generation controls

GajShield's context based bandwidth management prevents bandwidth abuse and resultant pipeline choking through bandwidth scheduling and providing committed, burstable bandwidth, protecting enterprises from Internet productivity threats.

It allows enterprises to take control of non-business related Internet activity which often affects critical business-related usage through its unified threat management. Business policies are created and linked to network management and usage reality, ensuring success of the policy.

Through GajShield's UTM, enterprises gain higher user and enterprise productivity through optimum use of infrastructure and smooth process of mission-critical applications.

GajShield's Context Based Bandwidth Management

GajShield's Context based UTM provides complete context to the data travering through the device. It is able to identify the application being used (e.g. Yahoo Mail, Gmail, Facebook, Yahoo Webchat, Orkut, MSN etc), the user who is using it, the time of usage, and the link used to create a context for every packet that traverses through the UTM. With this patent pending technology, it provides enterprises superior control over the data and hence bandwidth management.

It provides the following solution

- Bandwidth control based on the content or category of the website visited
- Control of bandwidth on a per user bases.
- Limit the bandwidth usage based on applications
- Create policies based on bandwidth used on a particular link
- Create shared or dedicated bandwidth policies
- Provide link failover to bandwidth policies
- Create bandwidth policies based on time of the day
- Create bandwidth quotas and time quotas for users
- Prioritize, shape or limit bandwidth
- Complete visibility on the bandwidth usage.

GajShield's comprehensive context based bandwidth management provides organisation to take control of their valuable.

Bandwidth – The Solution

The easiest solution for bandwidth unavailability is to increase the bandwidth. You could either increase the bandwidth with your existing service provider or add another link from another service provider. But the problem with bandwidth is, if you do not control it, it is never enough. Also more bandwidth leads to increase in non productivy. For ex., when bandwidth was limited, users may find it difficult to watch online videos or listen to music. But with increase in bandwidth, users find it easy to watch video and listen to music. Thus leading to loss of productivity and finally bandwidth availability to critical application and not to forget the cost incured in increasing the bandwidth. Higher bandwidth will also encourage users to browse sites which may cause security threat to an organisation and increasing legal liability. A better solution is to manage it.

The first step towards managing bandwidth is to identify the usage pattern and then controling it. GajShield's bandwidth visibilty reports brings indepth knowledge to resource used. The answers to the following questions are easily answered

- How much bandwidth is utilised on my Internet link and when
- Whether the bandwidth used is for business or non-business usage?
- If non-business, then who is utilising the bandwidth?
- What are they doing to consume this bandwidth?
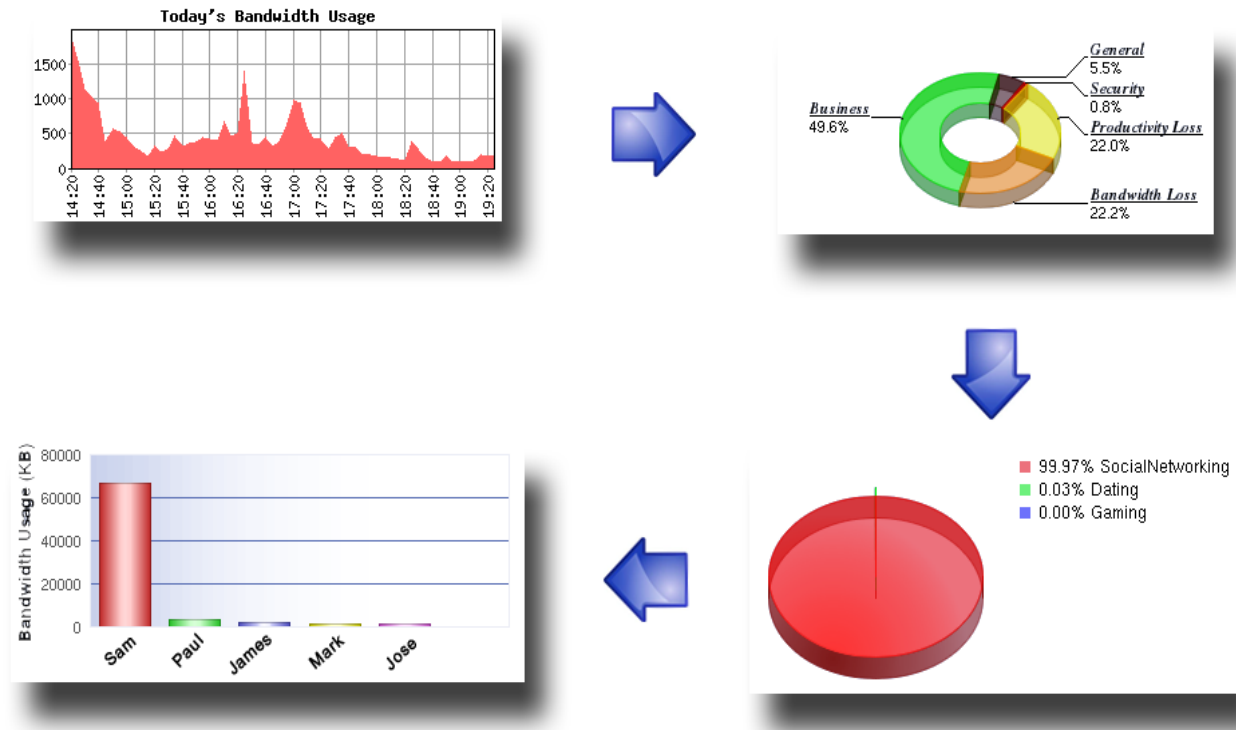
Indepth Visibility of Bandwidth Utilised

GajShield provides indepth reporting which helps an organisation to quickly identify the bottlenecks and setup policies to resolve them. In the above example, we where able to identify the bandwidth usage during the day. On further probing, it was identified that 22% of the bandwidth used where by sites which caused productivity loss to an organisation. It was easy to identify that 99.97% was consumed by Social Networking sites and by further exploring, it was found that 'Sam' is the user who has been using Social Networking, the most. Further remedy could be to warn Sam or setup policies to limit the bandwidth usage of the Social Networking category.

GajShield UTM provides a powerful tool to manage the bandwidth usage of an organisation. Using it, you can create bandwith queues to limit or burst bandwidth. You can even prioritise the bandwidth. These queues can then be attached to policies to control the usage.

Context based bandwidth Management

You can setup policies based on Users/Groups, Categories of sites, on a particular Site or an IP, based on Time and also on the ISP. In the above example, we could setup a policy for Sam, and limit his bandwidth to Audio/Video sites to 64Kbps and direct it through non critical ISPs. You could either limit the bandwidth i.e. bound it or allow to burst it when bandwidth is available.

An organisation can also setup Bandwidth quotas or Time quotas for Users/Groups. Once they have utilised their quotas, they would be blocked from using the Internet.

GajShield's indepth reporting and comprehensive analysis provides visibility to the bandwidth used in the organisation. Bandwidth policy further help an organisation to limit the bandwidth usage and hence provide bandwidth to enterprise application which will help in the growth of an organisation.

Conclusion

GajShield can help organisations to control and manage the bandwidth utilisation. Visibility provides insigth into the traffic utilised and helps in managing it. It can improve efficiency and productivity by blocking bad traffic and limiting non business traffic.

Organisation can now have complete control on what their users are doing on the Internet and maximise business by providing maximum bandwidth for business critical applications.