

# Break-A-Leg Inc.

## Capstone Development Project

PROFESSIONAL NETWORK DEVELOPMENT PROJECT  
SUBMITTED TO THE  
IT/COMPUTER NETWORK SYSTEMS PROGRAM  
IN FULFILLMENT OF THE REQUIREMENTS  
FOR THE ASSOCIATE DEGREE

By

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ITT TECHNICAL INSTITUTE

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## **About Us**

Sir Hamul Warsnailus Business Solutions is composed of a team of highly dedicated professionals who live to serve all of its current and potential customers. We do this through our core competencies which include: networking design and implementation, software and hardware solutions, training and education, data security and integrity, and outstanding customer service. We believe that all businesses no matter how small or large deserve the same level of respect, dedication, and care. Our consistent values make us a recognized leader in the industry and a vast majority of our partners come back to us for future solutions to their business needs.

Our goal is to ensure that you reach yours, and our staff is highly motivated to help you reach yours through implementing superior technologies at below-industry prices. We do this by setting up partnerships with software and hardware vendors to get the lowest possible prices without cutting corners or sacrificing quality; then pass those savings on to you, our partners that choose to obtain their superior business solutions through our company.

## **Break-A-Leg Current Layout**

Currently there are five buildings with no connectivity between sites, no company-wide file sharing or file transfer systems in place. A review of the current technologies employed have proven that the hardware capabilities are not up to industry standards and cannot process or handle currently existing software for medical or information applications, they are also incapable of handling certain images from medical graphics. Office buildings in the East and West have limited connectivity between sites which is used to share vital software that was loaded on to a Unix machine; however this connection is now dated and will need to be upgraded to keep up with the demand of newer technologies and other business needs.

North and South buildings has no LAN or WAN capability and only has use of a 56k dialup modem that handles billing and insurance information. Data is kept on various computers, and patients' information is all filed with hardcopy printouts using low-end printers. The central office has a LAN but needs to be upgraded to be able to handle data communication between all of the remote sites.

## **Break-A-Leg Proposal**

After meeting with the lead doctors from each office, our company has come up with a solution that will meet the current and future needs of Break-A-Leg Inc. Sir Hamul Warsnailus Business Solutions suggests that an overhaul of the entire existing technological setup be performed. Current hardware and software systems and technologies are not up to par with the current ideologies of the leading doctors. In order to maintain and run an efficient business, the technologies must be able to flawlessly handle the needs of the people using them.

In order to ensure that the new system will work seamlessly, the Company strongly urges that new hardware and software is purchased for all facets of the business including file sharing, disaster recovery, and more. The Company will build a plan of action and present this to Break-A-Leg in a presentation which will outline all upgrades and proposed solutions, as well as answer any questions.

### **Alternative Methods**

At Sir Hamul Warsnailus Business Solutions we pride ourselves with being able to offer you--our partners--a variety of proven methods which may be employed to solve your business needs. After careful consideration our team of network engineers has suggested a number of ways to upgrade the existing infrastructure and add network capabilities between sites. By upgrading existing computers and adding routers and switches to the configuration the hardware will be better able to handle the workload of its current use while adding inter-site connectivity that is vital to running a successful business practice across a geographical area.

Unfortunately there are problems with this method. Because some sites have computers of widely varying ages, not all of them are compatible with the necessary software which would allow them to access information on a new network and provide the security standards which are essential to meeting HIPAA requirements. Further review of this method proves that because of the age of the existing hardware, the upgrades that are applicable to the existing machines are not enough to adequately handle the software requirements necessary to streamline application and networking processes. Because of the insight gleaned from these studies, it has been the unanimous decision among our network engineers that for a fully functional network between sites to exist, a technological standard must be in place, and to do so it is in the best interest of Break-A-Leg Inc. for a complete overhaul of all current hardware and software systems be conducted.

### **Break-A-Leg Solution**

In order to integrate the five buildings together in a way that will minimally effect normal operations of any particular site, the Company will set up new systems side-by-side the old ones, and make final transfers of data during off-peak hours to ensure that doctors and nurses have access to necessary information at all times. Only one existing computer at each site will be taken down at a time, and only long enough to get a new computer system running in its place. Old systems which are replaced will be imaged to a new system until all other components are in place as to not affect any existing work procedures. New systems that are added will stay unused until the entire network solution is completed, excluding those used for testing and training purposes.

A number of changes must be made to the current method of technological and data employment if the upgraded network is to be used to its fullest potential. Sir Hamul Warsnailus Business Solutions will outline these changes by focusing on six core areas: hardware and software upgrades, data organization, data security, streamlining data and applications, network communication in and between sites, and training and education of newly employed technologies.

Break-A-Leg Inc. will be given a complete breakdown of all hardware and software used, as well as a description of each item, and the reasoning behind each decision. The Company will also offer alternative solutions and processes that may be used, including minor or major updates, cable replacement, and other changes to the internal infrastructure of each site. In

addition, a detailed risk assessment will be conducted which will review physical and logical security and disaster recovery methods.

Throughout the entire scope of the business solution our Company will make every effort possible to make sure that all procedures and setups will comply with HIPAA regulations regarding safety and security.

### **Risk Assessment and Management**

Our RAP Team (Risk Assessment and Prevention Team) has found the most likely threats which offer the most pressing risks to completion of the final product.

Collaborative Resource Breakdown: One or more doctors decide to pull out of the partnership during any portion of the project. Though the risk of this is small it could cause uncertainty and confusion and cause delays in work completion, and cause a surplus or backup of hardware and software resources. Because the same work is being done to all 5 sites, it should be known that the overall cost of implementation is roughly the same for each stakeholder if distributed evenly. If one partner pulls out of the project, any completed work at that site will be sole responsibility for that particular doctor; the partners that maintain their corroboration will not be forced to 'eat the cost'. Surpluses of hardware or software will be returned to their appropriate vendors if applicable. If there are pieces of hardware, software, or software licenses that cannot be returned, Sir Hamul Warsnailus Business Solutions will make an attempt to resell these products to other partners; if the Company is unable to resell those products the doctor which withdrew will be responsible for the full price. Cancellation fees of third party services are added to this figure.

Out-of-Stock/Product Vendor Errors: In the event that an item is out-of-stock, or temporarily unavailable, our business management team will attempt to find the same items at an equal or lower cost; if they are unable and only a higher-priced item may be found, the Stakeholders will be notified of any changes to products and our Company will pay for any extra costs, excluding higher shipping costs if applicable, unless the shipping costs are higher than the price markup of the purchased product. In the event that one of our vendors make an error by sending the wrong product, a defective product, or sends product to the wrong address, our Company will make every effort to correct these mistakes with the vendor, and if necessary pay for any additional costs which may incur.

Data Loss and Theft: Because of the sensitive nature of the data which will be handled during the course of the project, it is strongly recommended that an extra backup tape be made and in a separate and secure location; this will help prevent any accidental loss or destruction of vital data. The current backup method should be utilized until the new system is in place.

Communication Breakdown: Communication is pivotal to running a smooth business, or network. To reduce the chance of a breakdown in communication there will be a weekly meeting held between the project manager, lead technicians, and primary stakeholders. During these meetings three key points will be discussed: accomplished work, next step, and any problems or potential problems. These meetings will give the stakeholders a heads up on what will be going on and how it is affecting them and their business, and keep them in the loop. Any potential changes to the project, or concerns may be addressed at this time.

Interruption of Service: Our main goal is to help you reach your goal. This cannot be done efficiently if your business practices are compromised. In order to set up your new network and computer systems with the absolute minimum amount of intrusiveness possible, our technicians will work on a schedule around yours and conduct their business in areas which are not in use. In order to do this, our technicians will need to work with the doctors in practice in order to make sure that the technicians are not trying to do work in an office room which will be already occupied.

Physical Security: Although getting hurt at a doctors office is probably the most convenient place, our number one goal is to ensure the physical safety of everybody in and around the site of construction. Special attention will be made to make sure messes are quickly cleaned; all stacks are at least 3' high and marked with a brightly colored tag. All physical equipment not in use must be locked in a storage closet on site or off-site in close proximity for quick access. Wire maintenance guidelines must be followed at all times. In order to reduce the chance of theft, no pieces of physical equipment may be left in an area accessible to any person who is not a stakeholder or employee of Sir Hamul Warsnailus Business Solutions.

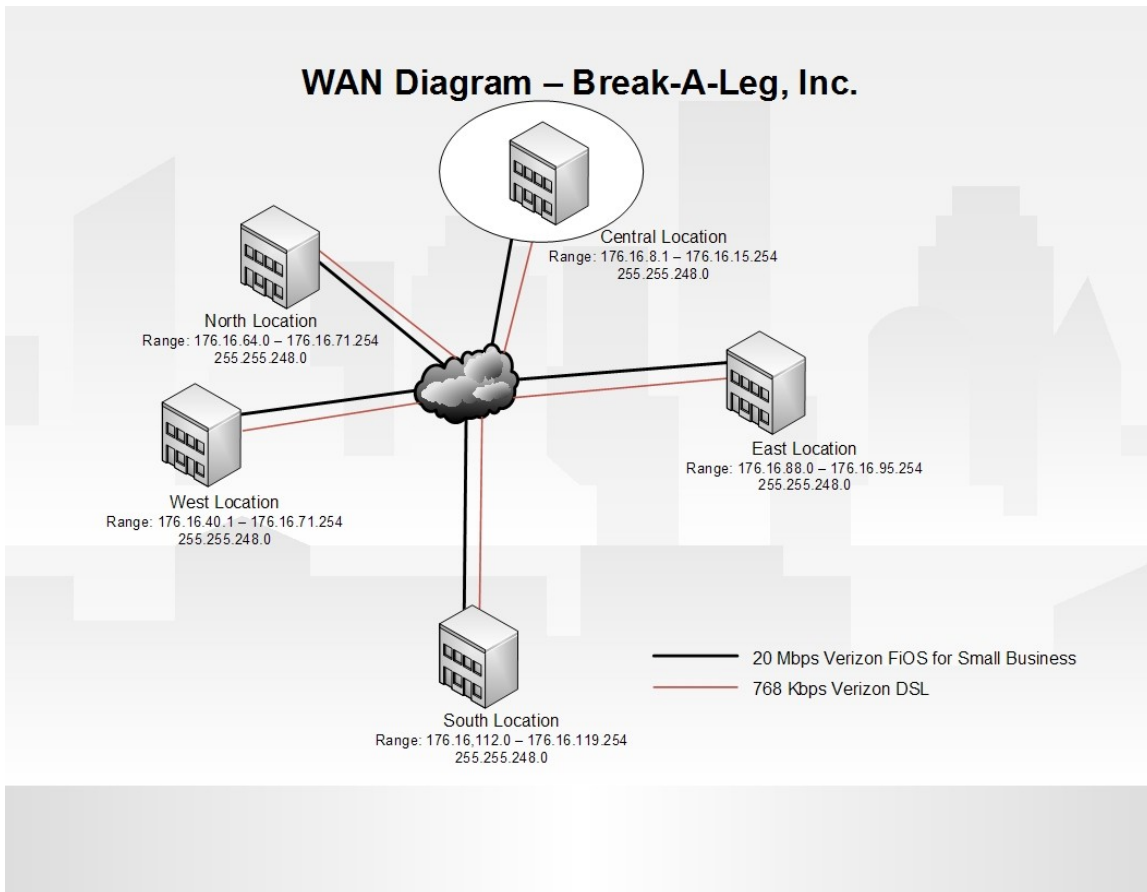
Logical Security: Cyber-security and intellectual property attacks are on the rise; we have taken it upon ourselves to prevent the opportunity for such an event. No workstations, servers, or other physical device may be left unattended. Before a technician leaves a device, that technician will be responsible for locking, shutting down, or taking other reasonable measures for protecting the data of the device. In addition, manuals and documents which contain information of a sensitive nature must not be left unattended or in any area accessible by a person who is not a stakeholder or employee Sir Hamul Warsnailus Business Solutions.

Insufficient Training: The added complexity of adding so many new systems and applications to a network may be confusing. Without proper training of these new systems, the overall goal of increased productivity could be reversed and Break-A-Leg may find itself losing money in terms of clerical and administrative costs. In order to maximize profitability of the new network all current employees must undergo a comprehensive training program. The specifics of the training program will be discussed later in this proposal.

## Connectivity

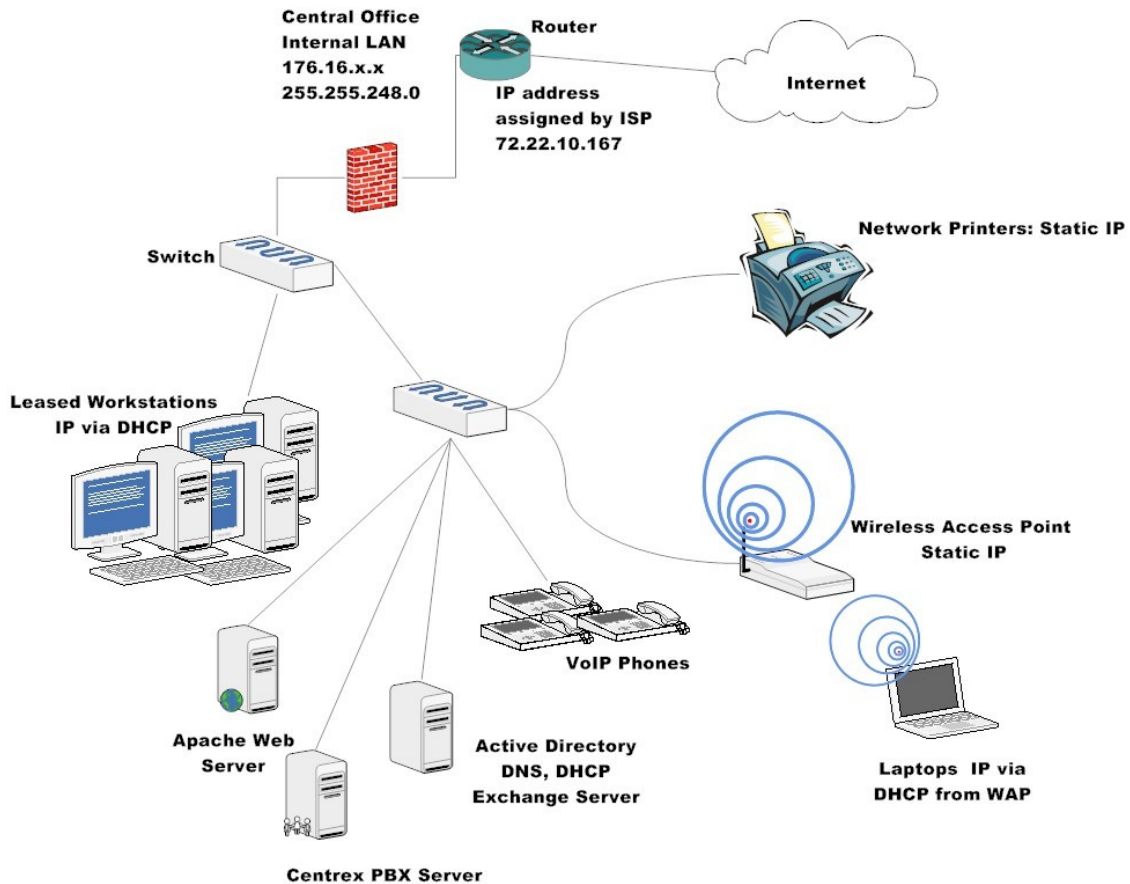
### WAN/Internet

A necessary part of having networking capability between sites requires the use of an ISP. For this we have decided to go with Verizon FiOS for Small Business. One dedicated line with a static IP will be set up at each site; installation will be handled by a Verizon FiOS technician. Installation of a dedicated line is only \$99, this will save over \$400 in installation and hardware costs; also since there will be a total of 5 lines, Break-A-Leg Inc. will qualify for an additional promotion: there will be an added discount in the form of a \$210 rebate for each site which will save your company over \$1,000. For the sake of redundancy a second line will be implemented: DSL via a phone line. This is done to reduce the probability of a site being totally down. If a fiber optic cable gets cut or destroyed, then connectivity is still possible. Likewise if a phone line goes down, then normal operating procedures will be virtually unaffected because the main internet line is via FiOS and phone calls can be made via VoIP.



### LAN/Intranet

Below is a logical representation of what the LAN will look like at each site. Servers and other physical network devices such as printers will be given static IP addresses; workstations will be assigned via DHCP across subnets using BOOTP.

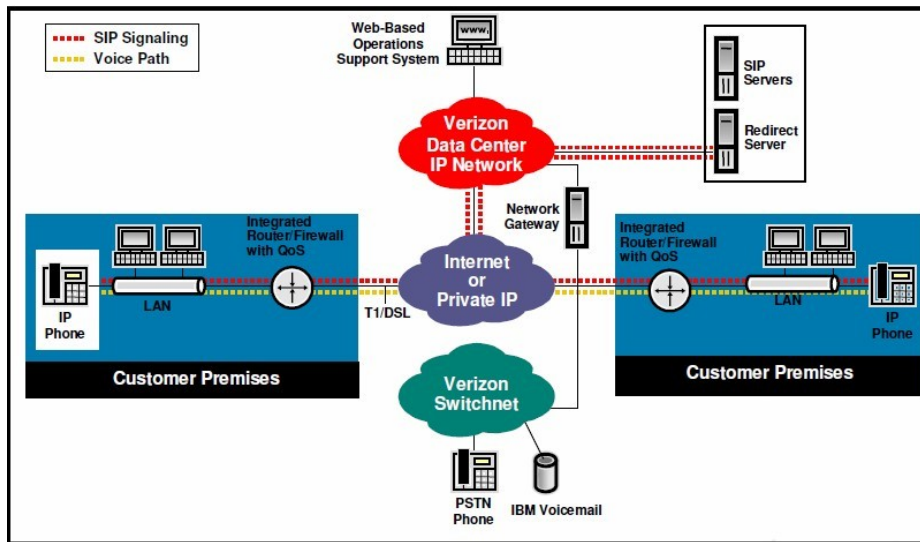


### VoIP

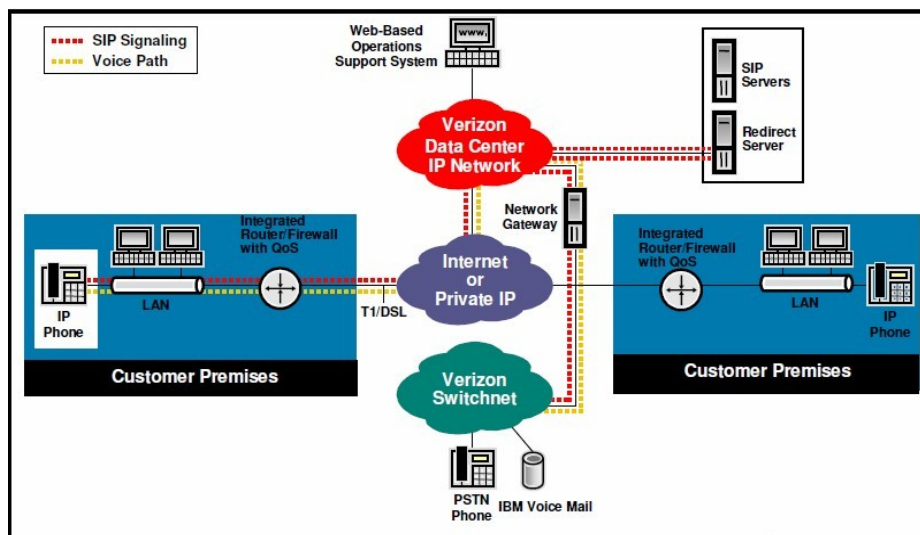
VoIP will be handled by Verizon using Centrex Hosted IP Telephony. All necessary hardware and initial software setup and delivery will be handled by the Verizon Company. Because Break-A-Leg Inc. will be obtaining internet and VoIP services through the same provider; scalability, management, payments, and integration will be simplified.

Hosted IP Centrex is a Voice over IP solution designed for business customers who want a network-based solution that provides complete integration with a robust collection of calling features and routing capabilities. Hosted IP Centrex makes convergence incredibly easy and cost effective; instead of installing new wires from an outside line; simply run an Ethernet wire from the switch to a specialized IP telephone.

With VoIP you can make IP to IP calls, or IP to PSTN, which are the standard telephones. Unlimited long distance and local calling, changeable call numbers, and dozens of other features are all accessible via a hosted web page.



IP to IP Calling



IP to PSTN

### Router and Switch Configuration

Routers and switches will be configured with static IP addresses on a subnet of 255.255.248.0. This subnet allows for 32 different subnets with 2,046 hosts for each. Out of these, only the first 15 subnets will be taken advantage of. The other 17 subnets will be reserved for expansion and testing purposes; the current IP Scheme allows for the addition of 5 extra remote sites without compromising the layout. Our company will take advantage of the EIGRP routing protocol for configuration.

Each site has 3 dedicated subnets applied to it with the exclusion of the central site which will have 4 dedicated subnets. These will be static IP addresses on subinterfaces; this will allow for added VLAN's to help increase security and organization. Currently each site has

one VLAN for basic connectivity; this primary VLAN will be given for the use of workstations. The second VLAN will at each site will be utilized for public applications, servers, and other networked resources. The purpose of dividing workstations, network resources, and wireless devices into separate VLAN's is to help enhance security and organization.

Below is a chart of the basic IP Scheme that will be followed for use of the LAN and WAN. It contains the name of the connections as well as the static IP addresses for serial ports, switches, and subinterfaces.

176.16.x.x	255.255.248.0			31	8	Central		
					16		Central	
					24			Central
<b>Router</b>	Serial0/3/0		104.2		32	West		
Central	Serial0/2/0		8.1		40		West	
	FA0/0		16.1		48			West
	FA0/0.2		24.1		56	North		
<b>Router</b>	Serial0/3/0		8.2		64		North	
West	Serial0/2/0		32.1		72			North
	FA0/0		40.1		80	East		
	FA0/0.2		48.1		88		East	
<b>Router</b>	Serial0/3/0		32.2		96			East
North	Serial0/2/0		56.1		104	South		
	FA0/0		64.1		112		South	
	FA0/0.2		72.1		120			South
<b>Router</b>	Serial0/3/0		56.2		128			
East	Serial0/2/0		80.1		136			
	FA0/0		88.1		144			
	FA0/0.2		96.1		152			
<b>Router</b>	Serial0/3/0		80.2		160			
South	Serial0/2/0		104.1		168			
	FA0/0		112.1		176			
	FA0/0.2		120.1		184			
					192			
					200			
					208			
					216			
					224			
					232			
					240			
					248			
						<b>Routers</b>	<b>Switches</b>	SubInt
							VLAN1	VLAN2

## **Disaster Recovery and Prevention**

### **Backup and Data Recovery**

Our company realizes the importance for frequent and consistent data backups and relying on one person with one tape is just not... reliable. Our solution to this is two-fold. We will use LiveVault to do incremental backups during off-peak hours three times per day, a differential backup once per day after closing, and a full backup twice per week. LiveVault uses a remote site to handle all data storage so in the event of a catastrophic disaster to the physical network, the data will still be safe from harm. LiveVault features a simple to use interface, web management utilities, and promises overnight deliveries of backup information in the event of a disaster. In addition to using LiveVault we will use PowerVault RD 1000 by Dell.

Our backup strategy will be using a 3-tier system known as "grandfather, father, son," using full backups after the offices close. Hot-swap HDD's will be labeled A, B, and C. A backups are the son's and will be used to back up daily, and be set into a 1-week rotation; this will require 6 tapes. B backups will be as the father and are used to back up weekly, and be set into a 1-month rotation; this will require 3 tapes. C backups are the grandfathers and will be used for monthly backups and will not be set into any rotation; this will require one more HDD. Any data in a field where information is updated frequently, 1 month may be considered too old to be useful. In total 10 tapes will be used in a rotation to ensure that the possibility of a data-disaster is kept to an absolute minimum. To further safe-guard the data, monthly backups will be kept in a remote warehouse that is outfitted for protection against fire and water damage.

### **Physical Device Recovery**

We know that "stuff happens," usually at the worst possible time. In order to reduce the amount of down-time from physical device failure we offer a program that ensures if any hardware breaks or fails we will offer a temporary replacement until a complete replacement or repair is made. Our company has a limited quantity of temporary replacements which can be shipped out overnight to replace computers, servers, routers, switches, and monitors. We loan these to you until the replacement from your contracted vendor arrives; the price for this optional service is minimal and outlined in the item sheet at the end of the paper.

If multiple components break then priority goes to the most vital piece first; priorities will be based in this order: ISP-routers, Switches, Servers, Workstations, VoIP, Wireless devices.

This priority list is based on dependency issues. Any work being performed on a wireless device can be done on a workstation. A telephone can generally be used in place of a VoIP line. Workstations depend on the servers to work effectively, servers depend on connectivity through the switches for LAN connectivity, and switches depend on the routers for WAN connectivity.

### **Training Program**

Training will begin the week following the implementation of new workstations and software. The training will last a total of two weeks; the first week will be dedicated to getting into the new system and basic functions; login and password policies, data security, printing/scanning/copying, email, presenting a quick demonstration, then allowing the staff to test their knowledge, and concerns, finishing up with a Q&A session.

The second week the training will go over functions such as accessing the FTP server, VoIP, remote control, remote assistance, and connecting wireless devices; followed by another demonstration. The staff must then individually go through all the procedures they have learned from the course, and demonstrate their proficiency of the new technologies with the trainer.

To ensure maximum retention and more personalized training, training will take place over a longer period of time with fewer attendees'. The medical staff will be broken down by site, and then halved, allowing two groups at each site; bearing 10 classes per week, 20 total. Group A (the first half of the staff) will run from 8:00am until 12:00pm. Group B (the second half of the staff) will run from 1:00pm until 5:00pm. The training schedule is as follows.

- Monday, Central
- Tuesday, North
- Wednesday, South
- Thursday, East
- Friday, West

Evaluation will be based on how well the medical staff demonstrates their knowledge of the new system, and a small test at the end of the course. Employee's that do not meet the recommended requirements will be required to take additional training and a retest, if the employee does not meet the requirements a second time in a row it will be up to the decision of their employer as to what further action to take.

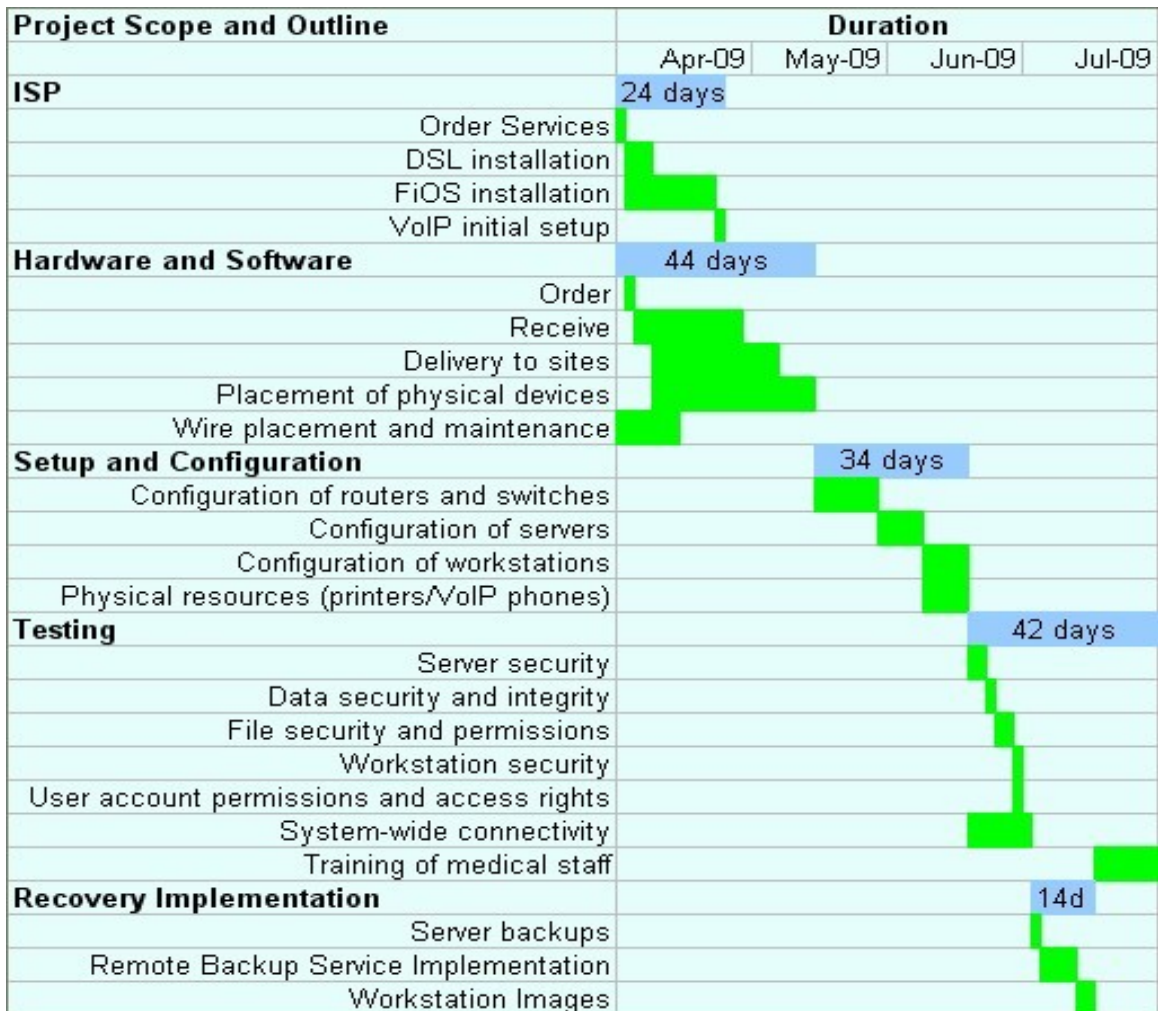
During the course of the training the trainee will document how well each person demonstrates their knowledge and supply it to the appropriate authority. The classes will be conducted in a manner which assumes that none of the medical staff has any technical knowledge.

A major risk to new systems and training the staff is the confidential information which will now be in a format that is easy to steal or manipulate. In order to help circumvent this we recommend that all medical staff signs an NDA which will outline the specifics of what information is considered private and confidential, as well as a contract which indicates they understand basic data security procedures; such as not personally storing data for private, or public use on devices such as: external hard drives, floppy disks or CD/DVD's, flash drives, email, or a private website.

Other risks to the training plan are staff being unable to attend a training class; for that a "make-up" class will be held on Saturday following the normal training week, and will be held from 1:00pm until 5:00pm, this time will also be used to retrain those who were unable to meet the recommended level of technical proficiency.

**Project Timeline**

We estimate that it will take no longer than four months to have everything completed. That includes ordering, shipping and receiving, configuration and testing, training, etc. Below is a GANNT chart which outlines all the major steps as well as the maximum estimated time to complete our objectives.



Fun fact! I made this GANNT Chart using MS Excel it holds 1830 cells, all of which were individually addressed to ensure accuracy.

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## **Hardware**

### **Dell PowerEdge2900 III**



Key features:

- QuadCore Intel Xeon5450
- 4gb 667 Mhz RAM
- Two-500gb hot-swap HDD's (1 RAID)
- 16x CD/DVD Combo Drive
- Dual Port Intel Pro Gigabit Ethernet

### **Dell Precision T3400 525w 64Bit**



Key features:

- Intel Core 2 Duo E7300
- 2gb 667Mhz SDRAM
- 250gb HDD
- 256MB PCIe nVidia NVS
- 16x CD/DVD
- Genuine Windows Vista Business Bonus-Windows XP Professional 'downgrade'

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### **Precision Mobile M4400**



#### **Key Features:**

- Intel Core 2 Duo T9400
- 2gb DDR-2 800Mhz SDRAM
- 160gb HDD
- 15 inch display
- 512mb NVIDIA Quadro FX770M
- Wireless LAN 802.11b/g
- Genuine Windows Vista Business Bonus-Windows XP Professional 'downgrade'

### **Dell Ultrasharp 1909W Widescreen**



#### **Key features:**

- 19 inch ultra sharp wide screen
- Max resolution: 1440 x 900 @ 75Hz
- Image Contrast Ratio: 1000:1
- Response time: 5ms
- Adjustable stand
- VGA/DVI inputs

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### HP Color LaserJet CM3530



Key features:

- Printer/copier/scanner/fax
- Print speed: 31ppm
- First page out: 10.9sec black; 12.2sec color
- Max monthly duty cycle: Up to 75,000 pages
- Print quality: 1200x600 dpi
- 512mb memory standard – 1gb max

### HP Color LaserJet CP3520



Key features:

- Prints/copies/scans
- Print speed: 30ppm
- First page out: 11sec black and color
- Max monthly duty cycle: Up to 75,000 pages
- Print quality: 1200x600 dpi
- 384mb memory – 1gb max

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### **Cisco 2811 Router**



Key features:

- Supports Ethernet, FastEthernet, and Gigabit Ethernet
- 256mb memory – 768mb max
- 64mb flash memory – 256mb max
- Built-in firewall protection, hardware encryption, support for VPN and MPLS, QoS

### **Cisco Catalyst 3750 SMI Switch 48 ports**



Key features:

- Data Transfer Rate: 1Gbps
- Supports 10Base-T, 100Base-TX
- 128mb memory
- 16mb flash

### **Cisco Aironet 1252AG Wireless Access Point**



Key features:

- Data transfer rate: 300Mbps
- Supports 802.11a/b/g/n
- 64mb memory
- 32mb flash
- Native features: DoS attack prevention, IDS, IPS, MMO, and WMM

Break-A-Leg Inc.

- Encryption methods: AES, TLS, PEAP, TTLS, TKIP, WPA, WPA2

### **Cisco 851W Wireless Router**



- Memory 64mb
- Flash 20mb
- Wireless with 4-port switch
- TCP/IP, PPTP, L2TP, IPSEC, PPPoE
- Native features: Firewall protection, auto-sensing per device; supports DHCP, NAT, hardware encryption, VPN, PAT, auto-uplink, MAC address filtering, and IPv6
- Communication standards: 802.1x/b/d/g
- Encryption methods: LEAP, DES, Triple DES, AES, TLS, PEAP, TKIP

### **Barracuda Web Application Firewall**



The Barracuda Spam Firewall is an integrated hardware and software solution for complete protection of your email server. It provides a powerful, easy-to-use and affordable solution to eliminating spam and viruses from your organization by providing the following protection:

Barracuda Spam Firewall:

- Cross Site Scripting (XSS)
- SQL injection flaws
- OS command injections
- Site reconnaissance
- Session hijacking
- Application denial of service
- Malicious probes/crawlers
- Cookie/session tampering
- Path traversal
- Information leakage

## Barracuda Spam Firewall

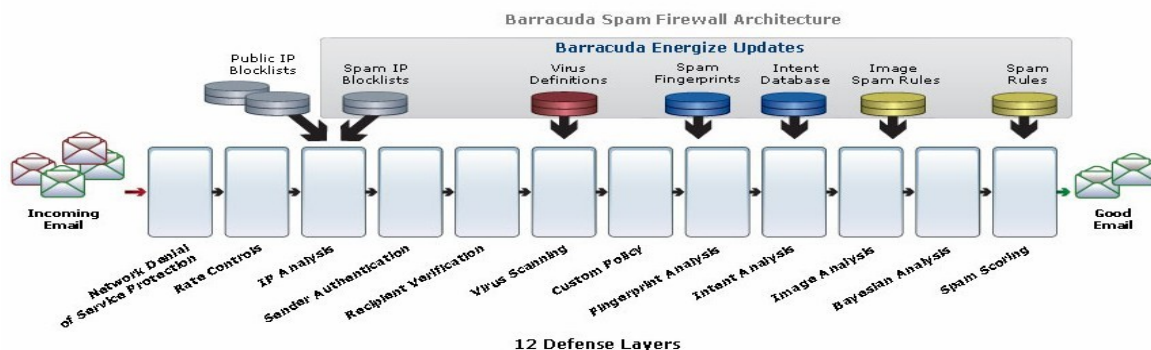


The Barracuda Spam Firewall is an integrated hardware and software solution for complete protection of your email server. It provides a powerful, easy-to-use and affordable solution to eliminating spam and viruses from your organization by providing the following protection:

- Anti-spam
- Anti-virus
- Anti-spoofing
- Anti-phishing
- Anti-spyware
- Denial of Service

Barracuda Spam Firewall has a twelve layer defense to protect your email infrastructure consists of:

- Network Denial of Service Protection
- Rate Control
- IP Reputation Analysis
- Sender Authentication
- Recipient Verification
- Virus Scanning
- Policy (User-specified rules)
- Spam Fingerprint Check
- Intent Analysis
- Image Analysis
- Bayesian Analysis
- Rule-based Scoring



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Graphical representation of 12-layer spam filter. Image copied from barracudanetworks.com

	A	B	C	D	E	F	G	H
1	Type	Generic Item	Specific Item	Quantity	Pgmnt	Term	Cost	Total
2	<u>Software</u>							
3		Database Program	4D Server v11 SQL w/2 Users	1			\$ 1,149.00	\$ 1,149.00
4		Antivirus Program	Multi-tier Protection 11.0 Small I	58			\$ 68.35	\$ 3,964.30
5		MS Office						\$ -
6		Email client software (outlook express)						\$ -
7		Data Backup and Recovery	LiveVault	1	1	36	\$ 800.00	\$ 28,800.00
8		Operating Systems						
9	<u>Hardware</u>							
10		non-fax printer	HP ColorJet CP3520	10	26	36	\$ 9,360.00	\$ 93,600.00
11		Network P/C/S		5			\$ 2,499.00	\$ 12,495.00
12		Fax Machine	fax included w/NetworkPCS	5				\$ -
13		Laptops	Dell Precision M4400	5	39	48	\$ 1,872.00	\$ 9,360.00
14		Workstations	Dell Precision T3400 525w 64B	58	20	48	\$ 960.00	\$ 55,680.00
15		Monitors	Dell 19 inch UltraSharp™ 1908FF	58			\$ -	\$ -
16		Wireless router	CISCO857W-G-E-K9	5			\$ 354.29	\$ 1,771.45
17		Router	Cisco2811	5			\$ 1,415.00	\$ 7,075.00
18		Switch	Cisco Catalyst 3750 SMI Switc	5			\$ 4,933.99	\$ 24,669.95
19		Application Server	PowerEdge2900 III	1	67	48	\$ 3,216.00	\$ 3,216.00
20		Wireless access point	Cisco Aironet 1252AG	11			\$ 778.00	\$ 8,558.00
21		Firewall	SpamFilter 300	1			\$ 4,397.00	\$ 4,397.00
22		Firewall	WebApp Firewall 460	1			\$ 18,850.00	\$ 18,850.00
23		IP Phone	Polycom SoundPoint IP601	11			\$ 169.95	\$ 1,869.45
24		Rack						\$ -
25	<u>Network</u>							
26		VoIP	Installation	5			\$ 95.00	\$ 475.00
27		Hosted IP Centrex w/verizon	Monthly Service	5	59.99	36	\$ 2,159.64	\$ 10,798.20
28		FiOS for Medium Business	Installation	5	Free		\$ -	\$ -
29			Monthly Service	5	99.99	36	\$ 3,599.64	\$ 17,998.20
30								\$ -
31	<u>Accessories</u>							
32		Extra Toner	Black	10			\$ 133.99	\$ 1,339.90
33			Cyan	10			\$ 264.99	\$ 2,649.90
34			Yellow	10			\$ 264.99	\$ 2,649.90
35			Magenta	10			\$ 264.99	\$ 2,649.90
36								\$ 9,289.60
37								
38						<b>Grand tot</b>	\$ 57,605.82	\$ 314,016.15