



Small businesses cannot afford a dedicated Information Technology professional on staff; however, they cannot afford to ignore technology if they want to remain competitive.

I founded F Schumacher Business Solutions specifically to act as an agent for the small business. Most IT companies act as resellers, and although they represent great technologies, their goal is to sell the products and services for which they have distribution agreements. I operate under a different concept, I locate the hardware and software the business requires, and where possible, have the business purchase direct. Large companies have enjoyed this privilege for years, it is time for the small business to enjoy the same benefits.

Over the past five years there have been tremendous developments with server virtualization. Here are some of the reasons for virtualization:

1. Allows more efficient use of high end hardware to host multiple VMs (virtual machines).
 - a) Most Windows servers rarely use more than 10-12% of their CPU's processing power.
 - b) Managing one physical machine takes about the same time with or without VMs.
2. Virtualizing a Remote Desktop Services, (RDS), server allows field workers access to a managed Windows desktop from anywhere, and from nearly any device (tablet, phone or laptop).
3. Server VMs can be implemented on redundant hardware, minimizing outages due to hardware failure.
4. Use of a SAN for data storage in conjunction with VMs makes establishing DR (disaster recovery) a less daunting task.
5. Software testing is much easier as a server or workstation VM can be spun up in minutes.

Please allow me to evaluate the potential for virtualization of your servers. Virtualizing can be used for efficiency of hardware, disaster recovery, and to provide virtual desktops for both your in-office needs, and potential remote access from IOS or Android phones and/or tablets.

If you are on a tight budget we can show you how to leverage the use of off-lease equipment to dramatically reduce your hardware costs. As an example, I just proposed a dual server with SAN configuration for just over \$25,000 using new hardware, and under \$15,000 using comparable off-lease equipment. Both configurations used HP rack mount server hardware with comparable configurations.

To secure your connection to the Internet I prefer working with Meraki brand routers/security devices, Wifi access points and managed switches. Meraki is a Cisco company, utilizing cloud based device management that does not require an on-premise management controller. In other words, the cost to implement and license the Meraki product is a substantial savings from most other business class security or Wifi devices. I can work with Cisco, and HP managed switch and router equipment but those will require more on-site time. For Wifi, in addition to Meraki, I will work with, but not install or directly support the consumer product typically bought online, (ie: Netgear, Belkin, Linksys, and etc.).

F Schumacher Business Solutions Client Service Options

The following table lists some of the management services I provide. By remotely monitoring and managing your systems I know if there are Internet connectivity errors, I can check the status of your data backups, can make sure your Anti-Virus system is working properly, and can make sure that necessary security updates are applied in a timely fashion. With the on-site agent, I can monitor many more elements on your devices, down to the state of specific application services.

(SO – Small Office; SOHO – Small Office Home Office; AP – wireless Access Point; PoE – Power over Ethernet)

1. Replace Existing firewall with a Meraki Cloud Managed device – \$300.00 for Site Survey & Installation
 - a) SO – 8 - 32 PCs no Wifi – Meraki MX60 + 3Yr License = \$495.00 + 500.00
 - b) SO – 8 - 32 PCs + Wifi – Meraki MX60W + 3Yr Lic = \$845.00 + 550.00
 - c) SOHO – less than 8 PCs – Meraki Z1 + 3Yr Lic = \$195.00 + 150.00

2. Install managed Meraki Wifi – \$300.00 for Site Survey & Installation 1 AP + 90.00 ea add'l AP
 - a) SO – 33+ PCs (3,000'Sq) – Meraki MR24 + 3Yr Lic = \$1,199.00 + 300.00
 - b) SO – 8 – 32 PCs (<3,000'Sq) – Meraki MR16 + 3Yr Lic = \$649.00 + 300.00
 - c) SOHO – < 8 PCs (1,500'Sq) – Meraki MR12 + 3Yr Lic = 399.00 + 300.00

3. Install Meraki managed switches – for \$300.00 Site Survey & Installation 1 Switch Each port can support a PC, or network printer, or wifi access point.
 - a) SO – 48 device ports + PoE – Meraki MS42P + 3Yr Lic = \$4,499.00 + 400.00
 - b) SO – 24 device ports + PoE – Meraki MS22P + 3Yr Lic = \$2,799.00 + 400.00
 - c) SO – 24 device ports no PoE – Meraki MS22 + 3Yr Lic = \$1,999.00 + 400.00

4. Remote Monitoring and Monthly Systems checks. 24/7 monitoring by itself lets me know if the PC servers are running, and if the Internet connection is stable. Adding the agent shows if necessary services are running, and if the Anti-virus and the Windows patches are up to date. Monitoring alone can send status messages to me, as well as, one of your employees. By adding the monthly system checks, I can proactively respond to monitoring messages, in many cases resulting in fixes before you or your employees are aware there was a problem. (minimum 4 PCs) (Initial setup \$180.00)
 - a) With Meraki Firewalls online remote status monitoring – \$12.00/month/Device
 - b) Systems without Meraki firewalls require additional installation – request quote.
 - c) Monthly system checks – \$45.00/PC (Windows) with Annual Agreement
 - Checks are performed remotely with access software, and include
 - Malware scan / removal of browser toolbars, hijackers and trackers
 - Status check of SATA drives
 - Quarterly disk drive defragmentation
 - Up to two on-site checks each year
 - Annual physical cleaning to remove dust and debris

F Schumacher Business Solutions Client Service Options

The following table illustrates typical costs for remote monitoring services:

PC/Server (Windows) Count		4	6	8	10	12	24
Monitor (w/Meraki)	12.00	48.00	72.00	96.00	120.00	144.00	288.00
Monitor (w/Agent)	25.00	100.00	150.00	200.00	250.00	300.00	600.00
System Checks	45.00	180.00	270.00	360.00	450.00	540.00	1,080.00
Monthly (w/Meraki Monitor):		228.00	342.00	456.00	570.00	684.00	1,368.00
Annual Prepay – 1 free month:		2,508.00	3,762.00	5,016.00	6,270.00	7,524.00	15,048.00
Monthly (w/Agent Monitor):		280.00	420.00	560.00	700.00	840.00	1,680.00
Annual Prepay – 1 free month:		3,080.00	4,620.00	6,160.00	7,700.00	9,240.00	18,480.00