



Whitepaper: 7 Technologies Every Medical Practice Should Look at

At IT MAX Group, we have a policy of putting all the disclaimers first. So here goes one for the whitepaper you're about to read: we didn't come up with the list of technologies discussed below. Companies like yours did. We regularly recommend them, cost-effectively deploy them and make sure they work as advertised —but we are simply riding the wave of demand for tools that truly work and deliver a solid return on investment.

Solutions presented in this whitepaper are implemented at thousands of doctors offices and medical practices like yours to increase productivity, cut costs and reduce exposure to risk. They are based on mature technologies that allow for repeatable results and consistent performance. Some may seem boring to you; others cutting edge. But if the collective intelligence of hundreds of our customers is any guide, they are definitely worth looking at.

This document is structured to present you with quick overviews and basic solution types for each technology to help your further research. Should you want more information, implementation advice or vendor recommendations, don't hesitate to call. We'd be happy to chat.
Meanwhile, enjoy the read.

The team at IT MAX Group

REMOTE ACCESS

DATA BACKUP AND
DISASTER
RECOVERY

VOIP

FIREWALL

BUSINESS CLASS
EMAIL

MOBILE EMAIL AND
INTERNET ACCESS

DOCUMENT
MANAGEMENT
SOLUTIONS

// **When you're a small business, every new technology deployment should save you time or money. If it doesn't, it's a waste of both.**

Max Longin
President, IT MAX Group



Remote Access

Just like the name suggests, remote access is a technology that allows you to access your files, folders, printers and applications from a location other than your office PC. It makes your doctors and support staff more productive by allowing them to use your office data and infrastructure during the off-hours, when they travel or when they'd rather work from home on an important project without being distracted by the zoo that your office often turns into.

Why It's On Our Radar

It's a mature technology that works well, it gives you extreme flexibility and it pays for itself very quickly with convenience and increased productivity.

Solution Types

The most common remote access solution is Remote Desktop Access, a technology that allows you to use your home machine, for example, to display the desktop of your office computer. The experience is rather seamless, although there can be a slight delay in mouse and keyboard inputs, and the color depth of the office computer's screen may be degraded to enhance performance and conserve bandwidth. You can work with all of your work files and applications just the same as if you were sitting at your office PC, and since you're just "viewing" your office desktop, none of the sensitive files actually leave the office.

There are two types of remote desktop solutions: the do-it-yourself type and the ready-to-use type.

- The do-it-yourself remote access uses the built-in capabilities of your Windows operating system to provide a remote desktop connection. In its simplest form without any added security, the service isn't difficult to set up and offers great performance. We always recommend, however, that a remote access solution be used in

conjunction with a virtual private network (VPN) to provide secure connectivity over the internet. The VPN can be a stand-alone system or be incorporated into your firewall or network router, but it is essential if you're dealing with sensitive customer, project and company information. The do-it-yourself way is free to use as much as you want and leverages your existing technologies, but it may take a bit of time to set up.

- The ready-to-use remote access solutions are designed to include all the tools you need to be up and running quickly. Popular services like GoToMyPC and PCanywhere typically include software for both the office and the home computer and provide a secure framework for data transmission. The main benefit of these solutions is that they are easy to set up and use (although your existing firewall can give you some trouble) and can provide you great features like multi-monitor support, drag-and-drop file transfer and others. The disadvantage is that they all come at a monthly subscriber charge.

Which method you choose depends on your existing IT infrastructure, your security requirements and the number of employees you expect to be working remotely.

Vendors to Watch

The do-it-yourself remote access solutions will be based on your existing hardware and software. Some ready-to-use products we've recommended include:

- GoToMyPC
- PCanywhere
- RemotePC
- LogMeIn

SIMPLE MATH OF REMOTE ACCESS:

Gaining an hour of work per week for just one of your doctors pays for 95% of remote access solutions on the market today.



Data Backup and Disaster Recovery

Data backup and disaster recovery solutions work on a simple principle of making a copy of your data and storing it in a secondary location that's easily accessible should the main data store get compromised. That second copy can be stored at an onsite location or in a different building, city or state depending on your business continuity requirements (for those of you who think storing it in a different city is an overkill, think New Orleans 2005).

Why It's On Our Radar

For most of our clients, their intellectual property is the most valuable asset they own. From client lists, patient data and HR files to meeting notes and emails sent three years ago, you need your information every day to keep your business alive and growing. Yet 90% of the time someone calls us asking for a data backup solution, we can answer the phone with "we're very sorry to hear about your data loss."

Learn from other people's mistakes. It's a fact: you WILL at some point lose your data. It can be something as simple as saving over an existing file with 5 hours of work in it (this quickly gets expensive if you bill \$250 an hour), or as dramatic as your server room getting flooded right before an IRS audit. Getting an effective backup and disaster recovery strategy in place may save you many headaches and unpredictable expenses in the future.

Solution Types

Going by the sales pitches you'll hear, there are a thousand ways to get your data backed up. In reality, there is only one major distinction that matters to you: where your data is stored.

- With **onsite storage**, your data will be backed up to a storage device such as a tape drive, hard drive, DVD or

some other media — and stored in your office, at least for the short term. The advantages of this method are that you can back up a lot of data at a relatively low cost and restore it very quickly should an incident occur. Unfortunately, this way of backing up does you little good if your entire office goes up in flames.

- With **offsite storage**, a copy of your files is sent via the Internet (usually at night) to a secure location that can be virtually anywhere on the planet. This obviously provides greater physical security, but can cost more as you are usually charged depending on how much offsite storage you need.

With either method, backups can be scheduled to happen automatically, when files or entire folders you select are monitored for change and are backed up without your involvement. Sometimes a combination of backup methods works best, and an appropriate schedule can be set up to get the best balance of cost and data security.

Vendors to Watch

You can have a vendor like IT MAX Group build your own onsite storage solution for you (which is often cheaper) — or go with a packaged product from providers like:

- Barracuda
- Computer Associates

Some good offsite backup vendors are:

- Symantec
- IBackup

BACKUP BY THE NUMBERS:

2,000: the number of laptops lost or stolen every day

32%: percentage of data loss caused by human error

\$1,500: average cost to recover data from a crashed hard drive

15: seconds before the next hard drive crash in the US

60%: proportion of SMBs that close down within 6 months of a major data loss



Voice over IP (VoIP)

Voice over Internet protocol (or VoIP) allows you to use your broadband Internet connection for your phone service. Replacing traditional phone lines and plans with VoIP services usually results in lower calling rates, better features, more flexibility and lower management costs. Plus if you're just now approaching the size when you need a phone system, hosted VoIP offerings can save you the initial expense of buying and deploying one.

Why It's On Our Radar

As far as phone communications go, today's VoIP services offer great call quality at low monthly or per-minute rates. Yet this isn't the only reason small businesses are embracing the concept. A good VoIP solution can make you more productive, make you appear a larger company than you are and cut your overhead expenses. Many business VoIP vendors have evolved past providing cheap, feature-rich phone lines to providing "unified communications" services that converge all of your business communications — phone calls, faxes, voicemail, email — into a single inbox and a single phone number for you. A customer calling your office line when you're not there will send your VoIP system looking for you at other numbers you've provided. A voicemail you receive while in meeting will appear in your email inbox for easy follow-up. Incoming faxes are automatically sorted and filed as PDF documents. Geek value of this aside, it's easy to see how VoIP can make your customers happier and your office more productive.

Solution Types

There are three general types of VoIP offerings:

- **Consumer-grade VoIP** products are business versions of popular services like Vonage or AT&T's former

CallVantage. They rely on analog telephone adapters to connect your existing phones to your router and are generally limited to four lines of service. These types of offerings offer unlimited calling at a low monthly rate and are completely transparent to the user, although they rarely offer advanced features and do not optimize transmission for the best quality.

- **Hosted VoIP** solutions generally use special (SIP-enabled) phones that connect directly to the service provider via the Internet. Good offerings in this category are extremely scalable and offer all the features you could wish for (including the unified communications framework, extension dialing, auto-attendant, etc.). Because the physical telephones contain all the hardware and software required, they can be easily moved within the office or even between locations.
- **Premise-based VoIP** offerings are used when you have enough users to justify the investment in your own hardware VoIP phone system, or if you want to connect your office applications with your phone system — to use a predictive dialer or an IVR system, for example. Premise-based systems generally require an upfront investment, although prices are quickly coming down.

Vendors to Watch

Consumer-grade VoIP:

- Vonage, Packet8

Hosted VoIP

- Packet8, Velocity Networks

Premise-based systems

- Cisco, Avaya

VOIP DICTIONARY

Quality of Service

(QoS): The ability of your network router to determine which traffic is voice traffic and give it transmission priority over everything else for best voice quality.

BYOB: Bring your own bandwidth. Most VoIP vendors will let you use your own Internet connection so long as it conforms to their standards.

BYOD: Bring your own device. Some hosted VoIP providers will let you select and buy your own SIP-enabled telephones so long as they are approved for use with their service.



Firewall

Firewalls are designed to protect individual computers or entire computer networks from unauthorized outside access. They use a set of rules that analyze the origin, destination, content and other parameters of your incoming and outgoing traffic to block unwanted elements.

Why It's On Our Radar

It's just too dangerous of a world out there to leave your network unprotected. By some estimates, an unpatched and unprotected Windows PC connected to the Internet lasts about 20 minutes before being infected by a worm or a virus, or getting compromised in some other way. Security of your corporate information aside, the lack of a strong firewall quite simply means hackers and curious intruders can take control of your network, destabilize your systems and damage your hardware beyond repair. We hate to scare our clients into buying anything, but fear is actually the right motivator to reevaluate the strength of your firewall solution. This is especially true because the cost of good protection is exponentially less than potential costs in downtime, hardware replacement, regulatory fines and lost revenue.

Solution Types

Firewalls can be broadly divided into two categories: software firewalls and hardware firewalls.

Software firewalls are sometimes called "personal firewalls" because they are installed on your personal computer or laptop to protect it from outside attacks. Once the firewall is installed, it must be configured to allow your common connections and applications to run properly. Good personal firewall systems often come as part of broader personal

security suites that offer protection against worms, viruses and spam in addition to monitoring traffic. The advantage of personal firewalls is that they are relatively inexpensive and easy to install and configure. The disadvantages are that you have to buy, configure and update firewalls for each computer (this gets bothersome and expensive with more than 5 users), and that a firewall installed on the same machine it's supposed to protect doesn't offer the same measure of security that a separate security device does.

Hardware firewalls make sense for organizations with over five users, or when an office network is in place for servers, file and application sharing, common printers etc.. A hardware firewall usually sits between the office network and the Internet, protecting all computers and servers on the network. This allows you to set a single set of rules and policies for all of your users and makes the firewall easier to manage and update. Hardware firewalls range from simple router-based versions to complex security appliances that include virus scanning, intrusion detection, VPN and other built-in capabilities.

It's important to know that a firewall by itself doesn't provide complete protection for your business, but if it's configured correctly it's a great first step to making your data and your operations secure.

Vendors to Watch

Software firewalls:

- McAfee, Norton, Symantec

Hardware firewalls:

- Cisco PIX, Nokia Checkpoint, SonicWALL, WatchGuard

"U.S. businesses lose \$67.2 billion annually to computer-related crime."

FBI

"Most of that is lost by small and medium businesses that think such stats never apply to small and medium businesses."

IT MAX Group



Enterprise Class Email

Few people in the business community need to be sold on the value of email. Everybody's got an email solution, and for many of you it is the primary method of communication with your vendors, prospects and customers. Yet from our experience many solutions in use today are subpar and don't reflect the needs of dynamic organizations that employ them.

Why It's On Our Radar

Email is often taken for granted. If you are like most of our customers, you probably selected your first email service years ago when you started the business and didn't touch it since. Email comes in, email goes out, why mess with it? Many reasons, as it turns out. Chief among them is the ability of a good email and collaboration solution to transform the way you manage business information, work together and communicate with your customers. From sharing your contacts and calendars to unlimited inbox sizes to easy scheduling of meetings and resources, enterprise class email solutions deliver high return on investment through increased productivity and better management of critical data. We aren't suggesting that every company of every size should get one, but everybody would do well to perform a cost benefit analysis on this.

Solution Types

There are several good enterprise email products on the market today, including PostPath, Lotus Notes, Microsoft Exchange and Novell GroupWise. We won't go into comparisons of these offerings, but will review instead two ways of buying and deploying an enterprise email and collaboration service:

On-premise server-based solution: in this scenario, your email system is deployed in your office on a dedicated or shared server machine. The advantage of

this setup is that once you buy, deploy and configure the service, it's yours to use and manage as you please. You can set up virtually unlimited inbox sizes, quickly modify system settings and set your own rules for when email data gets backed up. If you cringed reading this, then you know the disadvantage: you have to manage the system yourself. You are also responsible for building proper redundancy into the system so that you aren't left without email service (with all inbound emails bouncing back to customers) if your server crashes.

A **hosted email** product provides the same level of functionality as a premise-based solution, but all of your emails and the application itself are hosted in a secure datacenter by an email service provider (ESP). The service is completely transparent, and you get to use your regular email/collaboration tools like Microsoft Outlook that connect to the ESP via the Internet. The main draw of hosted email solutions is that everything is taken care of for you: from patches and upgrades to virus scanning to storing your emails in case you lose Internet connection. The drawback is that these services come at a monthly cost that is often based on how much data you store at the service provider's datacenter.

Vendors to Watch

On-premise solutions:

- PostPath, Lotus Notes, Microsoft Exchange, Novell GroupWise

Hosted email:

- Microsoft, Intermedia, Riverwatch

ENTERPRISE EMAIL ADVANTAGE

Shared contacts

Shared calendars

Shared folders

Unified
messaging

Seamless mobile
access

Full-featured web
access



Mobile Office Solutions

Small and medium businesses are rapidly adopting mobile office solutions to stretch the boundaries of the physical office, increase responsiveness and improve productivity of their staffs. By turning downtime into fully productive time in places like cabs, trains, client sites and airports, you can save many hours a week and do with them as you please.

Why It's On Our Radar

Two reasons: mature technology and high ROI. Recent years have brought big improvements in the quality of wireless networks, mobile devices and software, making mobile office offerings extremely user-friendly and reliable. Meanwhile, prices are coming down across a broad range of solutions, allowing companies to add a lot of capacity for a relatively small investment. Consider that an average Blackberry user gains 60 minutes of productive time per day simply by checking and responding to email during downtime in elevators, waiting areas and meeting rooms. Mobile broadband and mobile application solutions can introduce similar time savings, while also enhancing responsiveness and streamlining operations across your business.

Solution Types

Let's review three categories of mobile solutions that can help you save time and simplify many daily processes:

Mobile Broadband is an increasingly popular product that gives you high-speed Internet access over a cellular network. Enabling a business laptop with this service can give you instantaneous access to your email, your company intranet, office files and folders or even your office computer desktop through a remote access service. Ideal for employees that spend a lot of time out of the office, mobile broadband services are offered by

all national cellular operators, with speeds not much different from your office Internet access.

Mobile email and calendaring products like RIM Blackberry or Microsoft ActiveSync allow you to access your office communications on the mobile device. Connecting these to your enterprise email service usually provides the greatest level of functionality and payoff, although these solutions can also work with personal or POP3/IMAP email accounts.

Mobile applications can be deployed as stand-alone solutions or in conjunction with mobile broadband and email products, depending on whether the application needs to be connected to function. The driving force behind deploying most mobile applications is to simplify the flow of information to and from your office systems like customer relationship management (CRM), accounting and enterprise resource planning (ERP). For example, a mobile app that provides on-the-spot access to a CRM tool like Salesforce.com or Siebel can give your sales staff the tools they need to close deals and keep account information up-to-date. Similarly, a mobile time-tracking application can allow attorneys and consultants to easily capture the time they spend on any given project or client to simplify reporting and billing. A wealth of mobile applications are available for many industries and business functions, and many offer high ROI through increased productivity and better data in your systems.

Vendors to Watch

Wireless Internet access:

- SprintNextel, Verizon Wireless, AT&T

Mobile Email:

- RIM Blackberry, Microsoft ActiveSync, Good Technology

“ROI of a BlackBerry deployment is conservatively calculated at 238%. This equates to a payback period of 154 days, or approximately 5 months.”

**Ipsos Reid
Research**



Document Management Solutions

Document management solutions help small and medium businesses to electronically store, share, distribute and collaborate on documents and records. Many companies are deploying these systems to free up office space, improve search and retrieval, ensure regulatory compliance and achieve efficient and secure archiving of business information.

Why It's On Our Radar

Hard as you may try, there's no way to avoid paper documents. From mail correspondence and vendor invoices to customer contracts and meeting notes, a lot of your business information lives on paper — or is at least born on paper. Depending on your industry and your day-to-day processes, digitizing these records for easy storage, search and retrieval can produce enormous time savings and help you become a more responsive and flexible organization.

Solution Types

The difficulty with shopping document management systems is that there are quite a few offerings on the market and even more names for them, like document management, records management, digital asset management, document imaging, enterprise content management etc.. Instead of trying map out differences among these, our advice is to concentrate instead on key functionality you'd want your solution to have. Some examples include:

Document scanning and archiving allows you to quickly digitize your paper records, organize them according to projects or topics of interest and securely store them along with metadata that describes the purpose and contents of each file. These solutions are very popular among accounting, legal, real estate, finance and other firms that need to

space-efficiently store and easily access a large number of documents. Some products even include optical character recognition (OCR) capabilities that translate documents into common office formats for editing or in-document search.

Workflow and collaboration capabilities allow your staff to partake in creating or revising documents — either via templated workflows (e.g. finance has to review contracts before they go to the legal etc.) or in freeform with tools like discussion boards and web conferencing. Some content management solutions offer robust project management capabilities that allow you to set deadlines, milestones and responsibilities for each document.

Integration with existing software allows you to work with your document management system right out of your accounting, customer service, practice management, Microsoft Office or other software. Integrated solutions improve productivity by eliminating the need to toggle between applications to perform simple tasks.

There are many more things you need to figure out, including filing and retrieval procedures, versioning capabilities, security, disaster recovery, storage, distribution, authentication and traceability. If this sounds like a lot of work, here's some good news: 1) you aren't the first company in your industry to do this and there are pre-built solutions that will address most of your concerns, and 2) the payoffs from a well-configured document management solution can be huge. Just ask one of our clients who saves over \$60,000 a year in downtown Chicago rent by not having to store rooms full of paper.

Talk to your IT services provider about your processes and existing systems to see what impact a document management system can make at your firm. You may be surprised at how inexpensive these systems can be and what they can do for you.

NUMBERS IN DOCUMENT MANAGEMENT:

\$30: average cost to file and store one document

\$120: average cost to find a misfiled document

\$220: average cost to reproduce a lost document

7.5%: percentage of documents that gets lost

90%: how many papers are shuffled when handled

Stats by:
Gartner Group
Laserfishe
eCopy



Building the Business Case

If it were always easy to figure out the impact of new IT investments, the world would be a better place for all of us. You would no doubt have all the right systems in place — and we would spend all of our time building them and supporting them for you. This is, of course, too good to be true.

Sometimes, the metrics you need to build the business case (time savings, billable rates, etc.) are easily accessible and point definitively toward the right decision. Other times, you will know that making your customers and employees happier is the right thing to do, but will stumble in quantifying the benefits. Yet in other cases (when evaluating backup solutions for example), your only real metric will be the potential costs of NOT investing in a certain measure.

Our only real advice in the latter scenarios is to learn from other companies' successes and mistakes. Ask a trusted IT partner about how similar investments have played out at firms that do what you do for customers like yours. Hint: if every investment is deemed a phenomenal idea for your business, reconsider who you call your trusted IT partner.

Deploying and Supporting Your Systems

If you are a small or medium business with no in-house IT expertise, then some good news is in order for you. Most solutions we just discussed (and many we didn't) are increasingly available in the on-demand, managed, software as a service (SaaS) and in other turn-key varieties. It is entirely possible, for example, to have a vendor deliver, install and remotely manage your new firewall or your email server 24x7. You won't even know it's there.

The trouble with such bundled products, of course, is that they aren't always the best value for small businesses. Few of these offerings are designed to take advantage of your existing infrastructure, and the included management and monitoring services are often an overkill for that 10-15 person regional office of yours. Employing a good IT services company to build and manage your solution in-house is often cheaper. That being said, it is often a good idea to negotiate a flat-fee support agreement with your IT vendor. This can allow you to replicate the easy budgeting and worry-free experience of the bundled solution with the lower investment that comes with a self-built system.



About IT MAX Group

In business for over 10 years, IT MAX Group provides IT support and services to small businesses in legal, healthcare, professional services and other industries. We have helped many companies like yours to stabilize IT budgets, increase productivity and eliminate technology headaches. Spend your time doing what you do best — and let us do the same for your business.

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