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SPECIAL POINTS OF INTEREST

- **Learn How To Speed Up Your Network Through MPLS** (page 2)
- **Perform Like An Olympic Athlete!** (page 4)
- **Why Execution Is The Key To Success** (page 3)

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From The Desk Of The President

I know it's hard to believe, but we are only days away from the start of another school year.

With our kids about to embark on another educational adventure, it's a good reminder that we should also continue to further our education. With this in mind, I have included an overview of MPLS —Multiprotocol Label Switching (page 2).

With the recent conclusion of the Olympics, I thought it might be interesting to see if we could pick up any pointers from these out-



Steven Gerhardt, President, D&M Enterprise Group

standing athletes to help us improve our performance at the office (page 4).

While on the subject of peak performance, if it's been more than a year since your D&M Project Manager has thoroughly reviewed all facets of your account, call us at 1-888-357-5055 to arrange for a comprehensive audit. This service will assure that your company is not paying for services you don't need or overpaying for the services you do need.

I look forward to hearing from you.

steve

Tips For Discipline & Performance Issues

1. Never procrastinate with a performance problem. If you don't address the issue when it arises, staff will question whether you are doing anything at all.

2. When talking to an employee about a problem, phrase your comments in terms of preventing the problem from recurring. Use the inappropriate performance as a jumping off point, indicate why it is problematic, and then quickly move on to preventing re-occurrence. This moves the focus from blame to improvement.

3. Whenever possible, elicit the employee's suggestions about how to prevent the problem from recurring. Put the responsibility for suggesting solutions

with the employee. When possible, help the employee implement the solution.

4. Make it clear that your comments pertain to behavior or per-



Instilling fear in your employees often reduces productivity and has an adverse effect on morale.

formance, and not the person. Restrict your comments to particular instances of inappropriate performance and avoid inferring cause (lazy, uncaring, and incompetent).

5. Remember that to improve problem performance it is often necessary to "drive out fear." Some think that putting the fear of God into employees will spur them on to better performance.

Fear is more likely to reduce performance, loyalty, and effort.

6. If you never recognize effective performance, and do not praise those who perform well, you will not be effective in dealing with problem performance.

7. Above all, remember that even the best employees will find a discussion about inappropriate performance to be unpleasant. Some will take it personally,

some will not. Be prepared for some defensiveness, and do not take the bait. Stay in control of yourself and stay focused on the situation.

Are You MPLS Knowledgeable?

Multiprotocol Label Switching (MPLS) can speed up the flow of network traffic and make it easier to manage. MPLS is flexible, fast, cost-efficient and allows for network segmentation and quality of service (QoS). MPLS also offers a better way of transporting latency-sensitive applications like voice and video. While MPLS technology has been around for several years, businesses are now taking advantage of service provider offerings and beginning their own corporate implementations.

Multiprotocol Label Switching (MPLS) is a standards-approved technology for speeding up network traffic flow and making it easier to manage. MPLS involves setting up a specific path for a given sequence of packets, identified by a label put in each packet, thus saving the time needed for a router to look up the address to the next node to forward the packet to. With reference to the OSI model, MPLS allows most packets to be forwarded at Layer 2 (switching) rather than at Layer 3 (routing). In addition to moving traffic faster overall, MPLS makes it easy to manage a network for quality of service (QoS). For these reasons, the technique is expected to be readily adopted as networks begin to carry more and different mixtures of traffic. (Definition courtesy of Whatis.com.)

MPLS is called *multiprotocol* because it works with the Internet Protocol (IP), Asynchronous Transport Mode (ATM), and frame relay network protocols. The claim to fame of MPLS is "any-to-any" connectivity. This statement generally implies a comparison to permanent virtual circuit (PVC)-based technologies such as frame relay and ATM, where each site has a physical circuit connecting it to the "cloud." Logical circuits are then configured on the physical circuits to create virtual circuits connecting sites together.

If you were to purchase a full mesh of virtual circuits connecting every site to every other site, you would essentially have the same any-to-any connectivity offered by MPLS. Under the covers, of course, it's quite different, because packets are label switched and traffic engineered instead of being circuit-switched and provisioned. (From *MPLS – What voice managers need to know* by Tom Lancaster)

Migrating to MPLS: Decision Factors—Although most providers are still sticking to basics when it comes to deployment and features, it's a good idea for the engineering groups within organizations to know how they should prepare their current networks for transition.

Like any significant business decision, a number of qualifying factors usually drive a potential migration to MPLS. Several common reasons are:

- Converged services capabilities (voice, video, data).
- Any-to-any connectivity without the high cost of individual circuits.
- Advanced features for ingress and egress routing policies (load sharing, policy routing).
- Secure flexibility of adding future businesses and partners (multiple VPN support).
- Circuit consolidation (frame, T-X, ATM).

These highlight some of the most common criteria, but it is important that you know the drivers behind your company's decision to move toward an MPLS solution because some MPLS or protocol features may or may not be supported by the provider. It's also important because it can determine the overall network design moving forward. (From *Migrating to MPLS* by Doug Downer)

A service provider view ... Courtesy of Informit

An MPLS-based network consists of routers and switches interconnected via transport facilities such as fiber links. Customers connect to the backbone (core) network

through multiservice edge (MSE) routers. The backbone comprises the core routers that provide high-speed transport and connectivity between the MSE routers. An MSE router contains different types of line cards and physical interfaces to provide Layer 2 and Layer 3 services, including ATM, FR, Ethernet, and IP/MPLS VPNs.

In the incoming direction, line cards receive packets from external interfaces and forward them to the switching fabric. In the outgoing direction, line cards receive packets from the switching fabric and forward them to the outgoing interfaces. The switching fabric, the heart of the router, is used for switching packets between line cards. The IP/MPLS control-plane software, the brain of a router, resides in the control processor card. The phrase *IP/MPLS control plane* refers to the set of tasks performed by IP routing and MPLS signaling protocols. IP routing protocols are used to advertise network topology, exchange routing information, and calculate forwarding paths between routers within (intra) and between (inter) network routing domains. Examples of IP routing protocols include Open Shortest Path First (OSPF), Intermediate System-to-Intermediate System (IS-IS), and Border Gateway Protocol (BGP).

MPLS signaling protocols are used to establish, maintain, and release label-switched paths (LSP). Examples of MPLS signaling protocols include BGP, Label Distribution Protocol (LDP), and Resource Reservation Protocol (RSVP). The IP control plane may also contain tunneling protocols such as Layer 2 Tunneling Protocol (L2TP) and Generic Routing Encapsulation (GRE).

Because redundant network

elements add to the overall network cost, service providers typically employ different levels and types of fault tolerance in the edge and core network. For example, the core network is generally designed to protect against core router failures through mesh connectivity. This allows alternative paths to be quickly established and used in the face of a failure.

In the core, additional routers and links are used to provide fault tolerance. In contrast, on the edge, often thousands of customers are connected through a single router, and the edge router usually represents a single point of failure. The edge router is what most service providers consider the most vulnerable point of their network after the core is protected.

On the edge, instead of using additional routers and links as in the core, redundancy within the edge router via redundant control processor cards, redundant line cards, and redundant links (such as SONET/SDH Automatic Protection Switching [APS]) are commonly used to provide fault tolerance.

Once the decision has been made to move toward MPLS, the next step is designing your network to support the change and prepping your infrastructure to handle it. There are typically four ways a client can communicate with an MPLS VPN provider: BGP, OSPF, RIPv2 and static routing. Of these choices, BGP is recommended for most organizations because it provides the most flexibility and control of prefixes within the VPN. (From *Migrating to MPLS: Decision factors* by Doug Downer).

To learn how your company can benefit from MPLS technology, contact your D&M Project Manager at 888-357-5055.

Exceptional Execution Is Key To Success

Most profitable start-ups are not based on a new invention or an earth-shaking discovery, according to Columbia University.

Their survey of growth-company founders shows that 88 percent achieved their success due to an "exceptional execution of an ordinary idea." There was a lower risk when they just had to tend to the details than if they started from scratch.

The same survey showed that the founders were not wealthy. Most started with less than \$100,000 in capital. They were not very big risk-takers.

When Scott Cook left a successful career to start Intuit, he thought the worst thing that would happen was that he would spend a few years paying off credit-card debt, which he thought he could handle.

As with many successful start-ups, he wasn't the first to offer a per-

sonal finance product. When he developed Quicken, there were already 46 such software products available. But his



Scott Cook, the co-founder of Intuit, and the holder of a Harvard MBA, knows a thing or two about what it takes to launch a successful company.

"exceptional execution of an ordinary idea" proved to be very successful. Keith McFarland, author of *The Break-*

through Company: How Everyday Companies Become Extraordinary Performers, says there is a relationship between risk-taking and a company's success. But it's not what you think.

Quoted in *Time*, McFarland says that as entrepreneurs become more successful, there is a tendency for them to become more risk averse. When they get ahead of the game, they begin to play it safe even when the odds say a bigger investment is likely to pay off.

One of the factors that distinguishes breakthrough companies from those that fall behind is the tendency to continue to "up the ante" as risks grow.

McFarland concludes that the only safe bet in business is the one in

which a firm continues to play aggressively as the stakes in the game increase.

"Did You Hear About..."

Tom Watson Jr., CEO of IBM between 1956 and 1971, was a key figure in the information revolution.

Watson repeatedly demonstrated his abilities as a leader, never more so than in the following short story. A young executive had made some bad decisions that cost the company several million dollars. He was summoned to Watson's office, fully expecting to be dismissed.

As he entered the office, the young executive said, "I suppose after that set of mistakes you will want to fire me." Watson was said to have replied, "Not at all, young man, we have just spent a couple

of million dollars educating you."

The story provides a strong message of support and a reminder that some of the most powerful lessons we can learn are from our so-called failures or difficult times.

To think about the long term and the real value of what we do, we need to see things differently. Perhaps as Tom Watson Jr. showed in these memorable quotes:

- "If you stand up and be counted, from time to time you may get yourself knocked down. But remember this: A man flattened by an opponent can get up again. A man flattened by conformity stays down for good."

- "Whenever an individual or a business decides that success has been attained, progress stops."
- "Nothing so conclusively proves a man's ability to lead others as what he does from day to day to lead himself."
- "Really big people are, above everything else, courteous, considerate and generous — not just to some people in some circumstances — but to everyone all the time."
- "Every time we've moved ahead in IBM, it was because someone was willing to take a chance, put his head on the block, and try something new."

Are You Performing Like An Olympian?

During the Olympics millions watched athletes challenge themselves and each other. Not only did we get a chance to see sports performances, but we also got a glimpse, through interviews and spotlight pieces, of the means that these athletes use to reach their best performances.

What does this have to do with management? Two things: First, a manager's role is to lead people to aspire to be better, and to make anything appear possible. Perhaps we can gain insight into this process by learning from these athletes. Second, managers themselves can aspire to "winning management," using some of the techniques of athletes to increase their personal management effectiveness. Let's take a look at four general techniques that managers can use to enhance their ability to deal with challenging situations.

Envisioning Results: Swimmer Mark Tewksbury indicated that part of his preparation included imagining standing on the gold medal podium and hearing "Oh Canada" (he's Canadian). This type of visioning, repeated over and over, becomes a central motivating force for overcoming obstacles, because it focuses you on the reward. It makes the reward seem attainable, real and concrete provided that you visualize yourself in the picture, and that you paint a picture that engages all your senses. What does it feel like? What are you hearing? What do you see? Some examples. The manager who needs to do a stressful presentation, imagines that at the end, the audience is standing and applauding (the reward or result). She imagines the sense of accomplishment, the sight of those people smiling. Or consider a manager who has to conduct a difficult performance review. He prepares by thinking about a successful outcome, shaking hands with the employee, as the employee smiles and thanks him for the help.

Rehearsal: If you prepare for an event by actually carrying out the behaviors, it is called practice. If you mentally run through the behaviors, it is called rehearsal. You are practicing in the mind. Fortunately, practicing in the



mind can be done anywhere and can be as effective as "real" doing. However, mental rehearsal, as with results visioning, must be undertaken in detail, each step, action or word being imagined. The more vivid the picture painted, the better the results. Also, it is most effective if you imagine obstacles, things that might go wrong, and imagine dealing successfully with them.

Examples? The presentation rehearsal, where you run through in your head, what you will say, how you will say it, what you will look like while you are saying it, and what you will do if the overhead projector doesn't work. Or a meeting with an irate client, where you prepare by anticipating his behavior, and rehearsing your own responses.

Skills Building: All the visioning and rehearsal in the world can't help you if you don't know what you are doing in the first place. You need to build your skills and aspire to continuous development, if you are going to improve. You need to learn. Read everything you can

about your field. Talk to other managers about how they do things. Take advantage of training opportunities. Talk to your subordinates. And above all, reflect upon what you see and hear and learn. Even if it's in the shower or driving to work. Sneak it in.

Focus: One thing that stands out with Olympic athletes is their ability to focus on their task and tune out other things. Imagine if you had to chair a staff meeting with 70,000 observers and 20 million T.V. watchers.

When faced with difficult tasks, you need to ensure that other things are not intruding on your thoughts. Part of this is mental discipline which is not easy for some to learn. Part is learning how to manage your environment. If you are faced with a challenge, make sure that you are not interrupted in your preparation for the challenge.

Focusing can be learned through mental disciplines such as meditation, or physical disciplines

such as T'ai Chi or certain martial arts. Learning relaxation techniques will also help your ability to focus.

Summary: It may seem that these techniques should be particularly relevant for less experienced managers, but they are even more important for those who have more experience. That is because there is a tendency, after a while, to stop developing and learning. When this happens, a once successful manager may become an inept

one. By consciously applying these techniques, you will begin to approach your peak performance levels at any task, and enhance your long-term managerial effectiveness.



Using the same techniques Olympic athletes like Michael Phelps employ can improve your performance at any task.

Quotes Of The Month

"Never mistake motion for action."

Ernest Hemingway
(1899–1961)
American novelist

"Don't find fault, find a remedy."

Henry Ford
(1863-1947)
Founder of the Ford Motor Company

How To Do What You Know You Need To Do

Book Review: Consider the fat smoker. No point in telling him what he already knows: Lose weight, quit smoking, and get some exercise.

The fat smoker already knows what he should be doing, but knowing that doesn't make him get up off the couch. In that way, people and businesses are the same, says author David Maister.

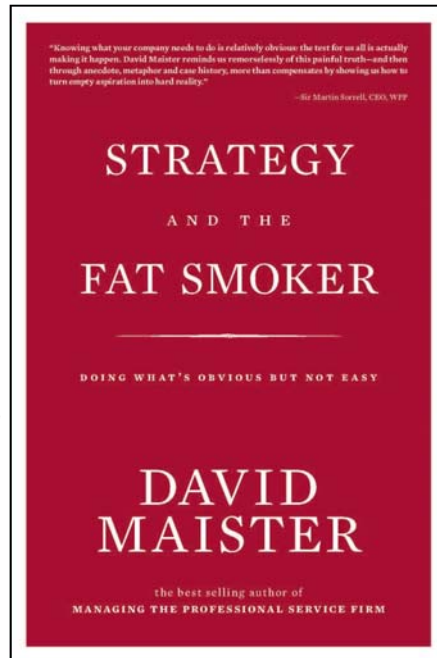
Maister's new book, *Strategy and the Fat Smoker*, attempts to explain how to move your business off the couch. Maister uses what reviewers call a folksy approach to business that blends wisdom, experience, and humility.

Though he's writing more specifically to service business and advertising professionals, Maister's messages work in most other kinds of business.

Fortunately, he does more than criticize and more than tell you how to make a great contact in an elevator.

He emphasizes that the organization

changes through relationships and agreed-upon standards established and enforced



from the CEO on down through the ranks. If the CEO and first managers are totally committed, energy for the program will filter down to the junior levels, and then to the outside world.

Maister points out that, just like individuals on a diet, organizations are tempted to revert to the old ways, even knowing that success and growth depends on continued adherence to a new program. Maister offers ways to overcome temptation.

Readers should pay special attention to Chapter 3. It gives a great list of a firm's optimal behaviors and state of mind.

One of his points in Chapter 8 is that many service firms don't teach their people how to sell. Companies need to find out what turns on a particular customer and what kind of client would interest a particular service person.

Strategy and the Fat Smoker by David Maister, The Spangle Press, \$29.99

About D&M

Founded in 2001, D&M Enterprise Group has thousands of satisfied clients. D&M utilizes a consultative approach to thoroughly examine every aspect of each client's telecommunications needs and then recommend specific cost-saving and performance-enhancing solutions. We specialize in medium to large-scale applications that include DS3, T1, as well as phone equipment installations.

As independent telecommunications experts, we have the luxury of offering our clients objective advice that truly serves their best interests. Once our clients' telecommunications needs are identified, we match these needs with the services offered by more than 20 of the nation's leading carriers and equipment manufacturers we represent. Because we have the ability to select from a wide variety of carriers and equipment, we can guarantee our clients that they are getting the **best solution** available at the **lowest possible cost**.

HOW WE DO IT: D&M does all the comparison shopping for you! Using proprietary software, D&M analyzes your existing communication, Internet, and data transfer usage. Once this analysis is complete, a comprehensive, customized proposal is prepared that shows the savings you can expect from competing carriers who can provide the same, or in some cases, superior service, at a lower price. Based on your needs, D&M will also recommend service and equipment changes that will save you money too.

In addition, D&M uses proprietary software, which we call our COMMauditor system, to analyze every invoice to ensure you are being charged at the contracted rate and that you are not charged for equipment or services that were canceled or never ordered. We also track all your telephony assets and vendor agreements.

The combination of increasing the efficiency of your business by ensuring you are using the proper services and equipment, along with monitoring your bills for accuracy, guarantees your company will be performing at maximum efficiency without overspending.

As your single point of contact, D&M makes it easy for you to spend your valuable time running your business while we make sure your telecommunications, Internet and data transfer needs are being supplied by the highest quality providers at the lowest possible cost.



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meet superior customer service**

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