Data Processing 101

Featuring: The First Ten Steps to Implementing Best Practices
&
The Five Major branches of IT Disciplines

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It's time to implement best practices, but there's one big problem: As an IT executive <u>what do you do</u> and <u>where do you begin</u> when the focus has always been on technology?

- Designing mission-critical business systems,
- Hiring the brightest technical staff,
- Purchasing the latest and greatest HW,
- Building a state of the art Data Center,
- Etc.

Wait, there's one <u>huge</u> problem: you have some major people issues to deal with at the same time:

1. Burnout across the organization
2. Reactive posture of Computer Operations to the rest of IT and business requirements. The staff is hardworking and very dedicated to their job. Unfortunately, in most instances they're in a reactive mode. The mode of operation is fix now, fix tomorrow, and fix the next day vs. strategic planning to improve the environment. It is difficult for middle management and staff to be more agile and change this mindset to look at alternative and creative ways to resolve many of the problems
3. Lack of experience building a 'world-class' computing environment. However, in defense of the staff most have never been introduced to this type of environment and the ultimate value of best practices (disciplines).

When you've designed and built an IT shop without any disciplines you need to start with the very basics:

- Processes and documentation
- Specific people initiatives
- Organization structure initiatives

In order to build the ideal IT computing environment <u>all</u> three of these areas must be addressed.

Processes and Documentation

To summarize the ten steps:

1. **Design a half-day meeting with the entire IT organization**. The objective of this meeting will be:

   a. Educate staff on industry-wide people, process, and organization structure issues, obstacles and best practices
   b. Educate staff on how to Build and Manage a world-class IT Organization

      - Site case studies to highlight ROI
      - Test aptitude

2. **Document current environment**. Establish priorities for the documentation. Which information is required to record right away and what information can wait until later. You can't do it all at once.

   Although every network has its own unique features, many common elements are candidates for documentation. These include:

      - Network topology
      - Server information
      - Data Centre facilities
      - Router and switch port assignments
      - Configuration of network services
      - Domain policies and profiles.
      - Mission-critical applications
      - LAN/WAN connectivity

   …to name a few. Take the time to properly plan what aspects of your network-computing environment you will need to document, but also the priority. You can't take it all on or you will surely fail.

   The duties of IT professionals sometimes include a number of unappealing tasks such as late night calls, last minute changes to test schedules, unreasonable customer requests, and weekend upgrades. These relatively minor annoyances pale in comparison, however, to one of the most unappealing tasks of all: documentation.

   The reluctance to document is understandable. Highly knowledgeable IT personnel usually excel more in technical skills than those of writing. Some view writing as a less important, periphery part of their job. Others may see documentation as beneath them. Many struggle with how to determine the true quality and value of the documentation they are generating.

3. **Educate staff (with detailed discussions) on IT Disciplines and review/revise role job parts and standards, goals, and individual learning objectives to incorporate relevant IT Disciplines.** Doing things right starts with *knowing* the right things to do. Like any profession, the IT profession consists of a set of disciplines, each of which constitutes a branch of knowledge and practice within the profession. It is the set of items every IT professional needs to know about and, if it is within his role, must work to master. It includes functions like project management and problem management. These are functions and processes that must be in operation in IT shops for them to run efficiently and effectively. They are, in essence, the set of 'right things' to do for the IT professional. Understanding and identifying the right things to do must start with a survey of the disciplines of the IT profession.

   The table below lists the five major branches of disciplines that constitute the IT profession. For additional information refer to the book IT People: Doing More With Less – ISBN: 1-4208-7988-X

The Five Major Branches of IT Disciplines

The Disciplines of the IT Profession Five Major Branches	The Set of Disciplines the Branch Covers
Process	Basic processes of IT
Governance	Management and control of IT
Object disciplines	Platforms or technology streams that make up the IT environment
Phase and function disciplines	Execution of a particular phase of the IT operations and project lifecycles; equivalent to the work of an IT function (IT department or organizational unit), where the function is organized by lifecycle phase
Stakeholder disciplines	Key stakeholders of IT

The Disciplines of the IT Profession

Process	Governance	Object Disciplines	Phase and Function Disciplines	Stake-holder Disciplines
Incident	Project/ Program	Storage	Evaluation	User
Problem	Org Change	Telecomm	Procurement	Customer
Change	Assessment/ Audit	Network	Define	Business unit
Release	Risk/Value	Database	Design	Site
Configuration	Communication	Application	Development	End-customer
Service Level	Marketing/ Sales	Infrastructure	Deployment	Supplier

Availability	HR/Workforce	Client	Delivery (Ops)	
Capacity	Goals and Metrics	Server	Decom-missioning	
Financial	Strategy/ Standards	Web/ Internet	Testing	
Continuity	Reporting	Documentation	Maintenance	
Security	Escalation	Procedures	Improvement	
	Monitoring/ Control	Tools to manage these	Support	
			Administration	
			Training	

Once these disciplines are understood, they must be driven down into the organization by including elements in job parts and standards, role goals, and individual development/learning objectives. THIS IS A CRITICAL SUCCESS FACTOR!

4. **Educate staff on the value of processes (for them).** WIIFM (What's In It For Me), meaning when describe value to the IT staff we must stick almost 100% to describing how it benefits them individually, not their team, not their company as a whole, not others. So any value statements we have for others, we need to translate into value statements for them, e.g., "lowers risk for ACME Corporation" to, "lowers risk for ACME Corporation, which helps ensure business continuity" - or something that talks to their job security, or pay, or satisfaction, etc.

When talking to value of processes, it is best to stick to the basics, i.e., makes your job easier, eliminates rework/snafus, etc.--of course, we need to use specific and simple examples. Yes the perception is that people perceive Change Management as just something that slows them down in their work. But like a traffic light, Change Management regulates the flow of changes, to make sure that they all go smoothly. Imagine intersections not having traffic lights...yes, when there are no other cars, you can proceed faster without having to stop or follow the red light...but normally there is traffic (or you don't see it coming), so it is always better to follow the light.

5. **Design a strategy (roadmap),** which identifies the appropriate disciplines for IT (as outlined in Step 3 above).

   - Prioritize disciplines
   - Acquire complete buy-in
   - Clearly identify roles and responsibilities with associated due dates

6. **Facilitate a gap analysis on current disciplines** to compare current procedures with industry-recognized best practices (i.e., ITIL, etc.).

There might be some good procedures documented to manage the day-to-day support activities. Although the big buzzword in the industry is ITIL there is no need to reinvent the wheel and discard the procedures currently managing the infrastructure.

7. **Minimally design and implement a Change Management, Problem Management and Release Management process**. This should be a <u>high</u> priority and <u>will</u> resolve many of the problems caused throughout IT. Especially the typical disconnect between Applications Development and Operations Support.

8. **Design and implement remaining disciplines (as identified in step 3 above)**.
   - Specialized guidance (mentoring) is required throughout IT as each process is fully implemented.
   - Simulate process flow with IT staff with real-world examples for a two-week (minimum) period.

9. **Market and sell newly developed disciplines throughout the IT organization.** Extensive resources will be used to market and sell the newly designed processes throughout IT. This will be a <u>major</u> challenge as this could affect the way IT delivers services today.

10. **Define metrics to gauge effectiveness of processes.** For additional information on metrics refer to the book titled IT Systems Management by Rich Schiesser.