

**You've Managed the Acquisition Costs.**

**Now It's Time to Manage the Payback  
Using Best Practices**

**June 2011**

**Randy James**

**Managing Director**

**The Consultants Source**

[Randy.James@TheConsultantsSource.com](mailto:Randy.James@TheConsultantsSource.com)

**312-835-4742**

# About TCS and the IT Best Practices Audit

- ✓ **TCS was founded in 2008**
- ✓ **We are former CIO's and consultants with over 60 years of experience**
- ✓ **We have directly experienced the effects of infrastructure – good and bad!**
- ✓ **Many new IT leaders come from software development or the business – many have limited infrastructure experience**
- ✓ **We have observed the declining use of “mainframe style” tuning skills and operations discipline – especially for PC/Web/Open Systems based applications**
- ✓ **We see increased reliance on processes to “manage” problems vs. identify and permanently solve the root cause**
- ✓ **We have “bottled” our knowledge and techniques to unlock the HUGE potential from existing IT assets (hardware, software, and people)**

## **Our Mission:**

**Help the CIO improve the use and value of technology to the organization.**

**Through our products and services, we share our experience, and provide unbiased, comprehensive, objective tools to identify the sources and root causes of technology issues, and provide detailed techniques and unbiased recommendations to permanently solve 100's of technology problems.**

# The IT Best Practices Audit

## For IT Leaders:

- A comprehensive, objective baseline of the current environment that identifies the practices in use, how well they are performed, and identifies tasks that are not performed
- Identify symptoms, sources and impact of poor practices
- Compare current state against Best Practices and Peers
- Identify and prioritize the topics to improve, according to your unique needs

## For IT Staff:

- A detailed, actionable plan with specific knowledge and recommendations to permanently solve the root causes of 100's of IT problems

# Do Best Practices Matter?

**Example: Customer needs Web site/e-Commerce capacity for 2000 users**

## Common Configuration

10 users per web server

- 200 physical servers
- 200 OS licenses
- 200 Tools licenses
- DC infrastructure
- DC operating costs
- Staffing
- Reliability issues

**\$5,787,436**

## Server Virtualization

10 users per web server

- 20 physical servers
- 200 OS licenses
- 200 Tools licenses + Hypervisor costs
- 10% DC infrastructure
- 10% DC operating costs
- 100% Staffing (but higher complexity)
- Same or worse reliability issues

**\$3,777,365  
(35% savings)**

## Use of Best Practices

100 users per web server

- 20 physical servers
- 20 OS licenses
- 20 Tools licenses
- 10% DC infrastructure
- 10% DC operating costs
- 10% Staffing
- Improved reliability and performance

**\$578,744 (90% savings)**

# Convinced Yet?

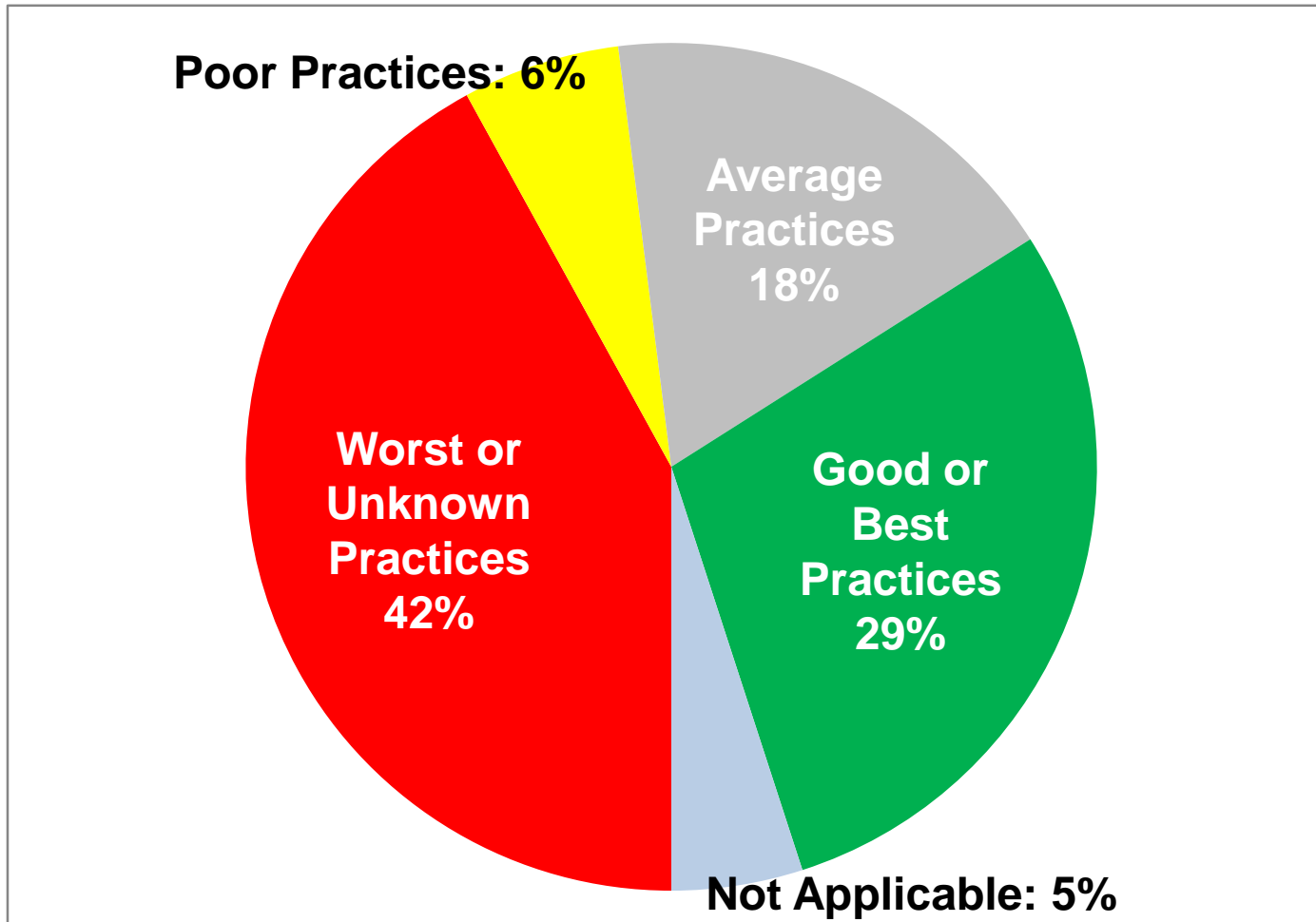
- ✓ **PC and server crashes – 90% reduction**
  - ✓ **Service desk calls – 90% reduction**
- ✓ **Useful Server capacity – up to 20x improvement**
  - ✓ **PC performance – 35% - 200% improvement**
    - ✓ **Extend useful life of devices by years**
- ✓ **Storage Performance – up to 1000% improvement**
- ✓ **Employee Productivity – 10% to 100% improvement**
  - ✓ **Software Development Costs – reduced by 30%**
  - ✓ **Cycle Times – reduced from 72 hours to 8 hours**
- ✓ **Organization Focus – shift from reactive to proactive**

# My Last Try...

## Business Outcomes of using Best Practices at a Life Insurance Company

Metric	Before	After	Annual Value
Work Environment	<ul style="list-style-type: none"> <li>• Frequent downtime</li> <li>• Poor application performance</li> <li>• Frustrated users, agents, and policyholders</li> <li>• Technology is limiting everything</li> <li>• Reactive/No fun</li> </ul>	<ul style="list-style-type: none"> <li>• No limits on user productivity</li> <li>• High employee morale</li> <li>• Industry leading customer service</li> <li>• Technology is strategic</li> <li>• Proactive/fun</li> </ul>	<ul style="list-style-type: none"> <li>• Organic, profitable growth</li> <li>• No changes to products or commissions</li> <li>• Forward looking</li> </ul>
Sales	\$67M	\$512M	\$445M increase
Employees (FTE)	676	454	\$13.3M reduction (60K each)
Operating Expenses	\$95M	\$76M	\$19M reduction
Employee Turnover	67% annually	12% annually	\$5M; 55% reduction; higher quality data and service
Backlog of transactions	6 months	none	Reduce regulatory risk; eliminate duplicate work; improved customer service
Avg Minutes/Trans	2.82	1.92	32% improvement
Marketing Staff FTE	104	25	75% reduction
IT budget	\$16M	\$13M	\$3M reduction
IT Staff FTE	49	35	29% reduction
% of IT time on new projects	0%	80%	Development of automated and self service capabilities

# Today's IT Practices



Data from TCS

**Q: What are your practices?**

**Q: Can you be World Class if 66% of your practices are not Good or Best Practice?**

# The Ripple Effects of Poor IT Practices





# Keys to Improving IT Performance

1. Comprehensive IT Best Practices Knowledge Base
2. Process and tools to identify topics for improvement and prioritize the implementation order

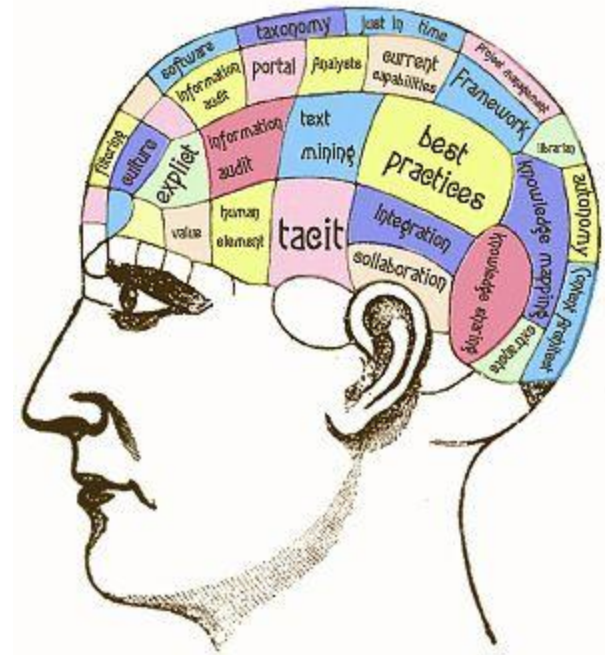
## Starting the Improvement

1. Identify what you are currently doing
2. Learn what you are doing well, and what your peers are doing
3. Learn what is done poorly or not at all
4. Learn how to improve
5. Implement/change your practices
6. Measure the results (Business outcomes, KPIs, financials)
7. Repeat annually or when needed

# Knowledge

## Definition:

A collection of facts, information, and/or skills acquired through experience or education.



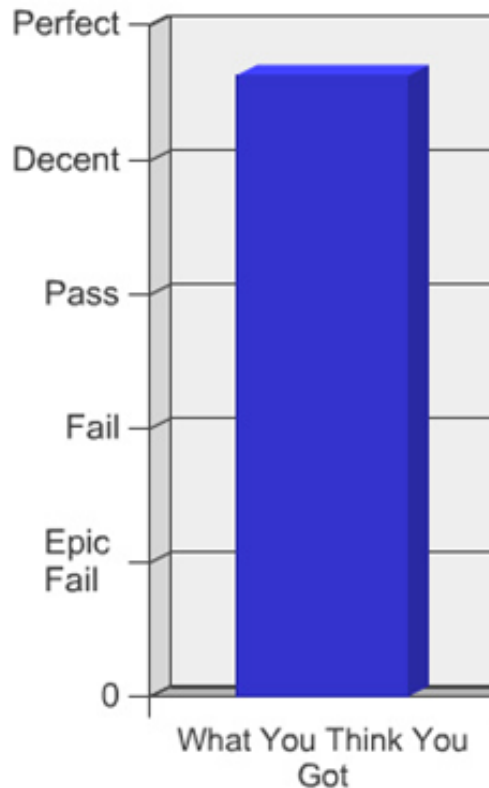
## Uses:

- ✓ Recognize “symptoms”
- ✓ Why is action needed (issues, problems, opportunity)?
- ✓ What can/needs to be done (treatment/procedure)?
  - ✓ Where to “operate”
  - ✓ When (before or after a problem occurs)?
  - ✓ How (methods, sequence, tools needed)?

# Human Nature:

## Self Assessment of Our Knowledge

### How You Think You Did On A Test



Subjective

Objective

GraphJam.com

### Denial:

- ✓ “We haven’t had these type of issues in 15 years”

### Delusion:

- ✓ “We always use Best Practices”
- ✓ “We are doing the best that can be done”
- ✓ “We use the best technology”

### Blame

- ✓ “Windows is unreliable”
- ✓ “SAP always crashes”
- ✓ “I never was trained”

### Ignorance

- ✓ “I don’t know”
- ✓ “I don’t want to know”
- ✓ “Not my Job”

# IT Knowledge

## Sources

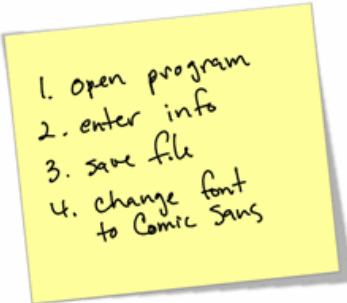
- ✓ Tribal knowledge
- ✓ Peers
- ✓ Post-It Notes
- ✓ In-formal training
- ✓ Experience
- ✓ Experimentation
- ✓ Research, media (manuals, books, magazines, Internet)
- ✓ Consultants
- ✓ Documentation
- ✓ Formal training
- ✓ Management

## Not so much

- ✓ Intuition – “This will work”
- ✓ How we did it last time
- ✓ Use of Process (ITIL)
- ✓ Use of defaults
- ✓ Google
- ✓ Media stories
- ✓ Vendor advertisements, white papers, sales staff, “recommendations”

**“The things that pass for knowledge,  
I don’t understand”**  
– Reelin’ in the Years, Steely Dan

# IT Knowledge – Key Issues



1. open program  
2. enter info  
3. save file  
4. change font  
to Comic Sans

- ✓ **Post-it Notes fall off and blow away**
- ✓ **Human Nature – ego, fear of exposure**
- ✓ **Leadership – purchase millions in assets, but don't invest in knowledge for staff to maximize the value**
- ✓ **Confusing Tools, Data and Process with Knowledge**
- ✓ **Tree hugging: only Barney believes “it's nice to share knowledge”**
- ✓ **Academic knowledge vs applied knowledge**
- ✓ **Increasing complexity and component count**
- ✓ **Vendors have no incentive to help; problems = revenues**
- ✓ **Incomplete or inaccurate documentation**
- ✓ **No comprehensive knowledge base**
- ✓ **How to identify opportunities to improve**

# Best Practices Audit Content

## Environment (Application, Location, etc.)

### 15 Subjects

- Cloud Computing Readiness
- Cost Containment
- Data Center
- Networks
- Desktops and Printing
- IT Governance
- iSeries Servers
- Microsoft Servers
- Web Servers
- Unix Servers
- Compliance and Security
- Storage
- Telephony
- Database
- Software Licensing

### Categories

- Documentation
- Staffing
- HW Configuration
- SW Configuration
- Parameters/Tuning
- Tools
- Utilization
- Reliability
- Data Center Equipment
- Security
- Operations
- Maintenance

### 2200+ Topics

- Symptoms
- Current state
- Topic Importance
- Suggestions on where to find supporting data
- Relative importance to other topics
- Current Impact
- Best Practice of the topic
- Specific recommendations to improve results

**Subjects can be selected for each Review**



# Specific, Actionable Information



## IT Best Practices Audit

Northwest Medical Center

Audit Date: 5/11/2011

Environment Audited: Clinical Systems

**Subject Name:** Storage

**Category Name:** Storage subsystem Utilization

**Audit Topic:** Storage - number of seconds per minute of 100% utilization (% busy)

**Importance & Discussion:** When a disk or subsystem is 100% busy, it has no capacity to perform more I/O's or transfers, causing delays or errors to applications.

**Common Symptoms of Issues:** Limited or poor storage I/O or throughput performance

Key
0 - 29 Good
30-49 Needs Improvement
51 - 100 Significant Impact

Peer Averages	
Subject Score:	49
Category Score:	83
Topic Score:	67

Client Scores	
Subject Score:	68
Category Score:	74
Topic Score:	71

Client vs. Peer Averages	
Subjects:	Worse
Category:	Better
Topic:	Worse

**Current Practice:** 13 to 18 seconds per minute at 100% utilization.

**Next Incremental Improvement:** 6 - 12 seconds per minute at 100% utilization.

**Best Practice:** Less than 6 seconds per minute at 100% utilization.

**Opportunity/benefit of using Best Practice:** I/O and Throughput can increase up to 1000%

**Recommendation:** Decrease the demand, or increase the physical configuration of the storage subsystem, including adding drives, the speed of drives, cache, I/O links, RAID types, etc.

**How/Where to Inspect:** Check the % busy in Perfmon or use the vendor's storage management tools.

**Audit Notes:**



# TCS Best Practices Audit

## Sample Reports

### Cloud Computing Readiness Options Matrix™

The Consultants Source Cloud Computing Options Matrix™			Cloud Options				Other Options		
Category	Action Score™		SaaS - Software as a Service	PaaS - Platform as a Service	IaaS - Infrastructure as a Service	Private Cloud	Short Term	Longer term	
		PROACTIVE	Few, low impact issues with existing processes, training, change management, clearly articulating requirements, etc.	Migrate existing app (COTS or custom) to SaaS	Migrate existing app (COTS or custom) to PaaS	Move existing app (COTS or custom) to IaaS	Move to a private cloud using existing infrastructure	Optimize existing applications and business processes	Examine cloud options; research; R&D
Business Preparedness	22	PROACTIVE							
Client IT Staff Preparedness	35	REACTIVE	Skill and experience levels of current IT staff/support needs some improvement	Migrate existing app (COTS or custom) to SaaS		Move existing app (COTS or custom) to IaaS		Fix/stabilize existing infrastructure; invest in staff and training. Consider use of external resources	Replace existing infrastructure
Cloud Cost Model Components	25	PROACTIVE	Identification and quantification of components of current costs and expected cloud related costs is complete	Proceed with decision and/or selection	Proceed with decision and/or selection	Proceed with decision and/or selection	Proceed with decision and/or selection	Identify costs of performing upgrades of current systems	Measure and monitor costs as the projects progress
Cloud Services Provider (CSP) Vendor Research	78	REACTIVE	Identification of key vendor services, pricing, financial stability, customer satisfaction and support, billing policies, etc. needs significant improvement					Invest staff time and effort to compete the research to identify available providers and compare the products and services.	
Current Technology Infrastructure	47	REACTIVE	Current infrastructure needs some improvement	Implement new apps as SaaS to minimize infrastructure impact		Move existing app (COTS or custom) to IaaS		Fix/stabilize existing infrastructure; consider use of external resources	Replace existing infrastructure
Peak Capacity Requirements	80	REACTIVE	High peak volume requirements	Migrate existing app (COTS or custom) to SaaS	Convert and/or rewrite custom app to PaaS	Move existing app (COTS or custom) to IaaS	Implement a private cloud to provide needed peak capacity	Increase capacity of existing infrastructure	Replace existing infrastructure to add capacity

# The IT Best Practices Audit

CIO Need	How The Audit Helps
Comprehensive review	15 subjects, over 2200 available topics.
Objective	The review is industry, vendor and technology neutral.
Proven Content	We have direct experience with EVERY topic; use of each topic's Best Practice has proven to have significant, positive impact.
Specific	Includes descriptions of the importance of each topic, where to find supporting evidence, examples for each topic – illustrating poor practices to best practices, and specific recommendations.
Actionable	Color- and numeric coded reports prioritize and recommend what topics to tackle, starting with highest impact. Many topics can be improved by your IT staff.
Repeatable	The structured interview process and comprehensive content ensures that all topics are consistently addressed. Results can be directly compared against peers, different environments, locations, or timeframes. Some clients perform annual reviews, or use the process for M&A deals.

# The IT Best Practices Audit

<b>CIO Need</b>	<b>How TCS Helps</b>
<b>Minimal impact on IT staff</b>	<b>Only 1-2 staff members are needed for 3 - 4 hours for each subject. A typical review requires less than 1 week to complete.</b>
<b>Fast</b>	<b>Detailed reports are available within 5 days of the interview, improvement activities can begin immediately following the delivery of reports.</b>
<b>Help to permanently solve recurring issues</b>	<b>The review identifies many of the root causes of recurring issues, and communicates the recommended Best Practices/solutions to permanently solve the problem.</b>
<b>Maximize the value in the existing IT assets we own</b>	<b>Is designed to identify opportunities to improve reliability, utilization, performance, and ROI of existing hardware, software, and IT staff.</b>
<b>Customizable to my needs</b>	<b>You select the subjects to be covered, and the depth of each subject.</b>
<b>Non-invasive</b>	<b>No software is installed. No devices are connected to your network. No data extracts are required.</b>
<b>Cost effective</b>	<b>Priced by subject</b>
<b>Confidential and no pressure</b>	<b>The reports are delivered directly to the CIO.</b>

# Benefits of Using the Best Practices Audit

## Identify the specific sources of current infrastructure issues and risks

- ✓ An independent “second opinion” of the state of infrastructure and use of best practices
- ✓ Identify sources of bottlenecks that reduce end to end capacity
- ✓ As an objective baseline to measure and compare results/progress of multiple environments, applications, locations, etc. on an annual basis

## Identify IT Cost Containment Opportunities

- ✓ Maximize the capability/utilization (and ROI) of existing IT assets to reduce IT spending
- ✓ Extend the useful life of existing IT assets through tuning and minor configuration changes
- ✓ Reduce software development costs and impact to delivery schedules due to infrastructure issues
- ✓ Reduce Help Desk costs by implementing permanent solutions to critical and recurring issues
- ✓ Control the scope of vendor/consultant work on infrastructure related tasks

## Objective Data for Decision Making

- ✓ Prioritize and allocate IT staff and/or consultants to resolve high impact issues
- ✓ IT budget preparation and investment justification
- ✓ Provides input for vendor and device/component selection and negotiation
- ✓ Understand how to make best use of Cloud Computing offerings in the marketplace
- ✓ Cost analysis and identification of the performance of pre- and post acquisition IT investments and M & A opportunities
- ✓ Evaluate hosting or remote management providers – are they using Best Practices?

## Increase the skills and expertise of existing infrastructure staff

- ✓ Identify Staffing and Training issues

**Thank You!**

**Questions?**

**More Information:  
[WWW.TheConsultantsSource.com](http://WWW.TheConsultantsSource.com)**