IT Best Practices Audit™

TCS offers a wide range of IT Best Practices Audit content covering 15 subjects and over 2200 topics, including:

1. IT Cost Containment — 84 topics
2. Cloud Computing Readiness — 225 topics
3. Networks — 185 topics
4. Desktops and Printers — 208 topics
5. Storage — 130 topics
6. Microsoft Servers — 191 topics
7. iSeries Servers — 116 topics
8. Web Servers — 119 topics
9. Unix and Linux Servers — 134 topics
10. Database — 115 topics
11. Software Licensing — 24 topics
12. Telephony — 82 topics
13. Data Center — 253 topics
14. IT Leadership and Governance — 185 topics
15. Compliance and Security — 296 topics

IT Best Practices Audit™

iSeries Servers Audit Categories and Topics

Category	Audit Topic
General	Name(s) of client resources providing data for this subject
General	Title(s) of client resources providing data for this subject
General	Collect General iSeries server Info (model, OS versions, interactive and batch workload rating, general configuration info, etc.)
General	iSeries Server Configuration and Operational Documentation
General	Change management process
General	Change management logs
General	Separate Development, Test, and Production Environments
General	Capacity Utilization and Planning Processes
General	Proactive meetings/communication with vendor representatives
Cost Metrics	IT Cost Metrics - Total Annual Cost Per iSeries User
Cost Metrics	IT Cost Metrics - Number of iSeries users supported per iSeries Support Staff FTE
Staffing	iSeries Server Staffing
Staffing	Staff Training
Reliability	Overall Availability (% of planned uptime) - check system uptime counters
Reliability	Hardware Failures
Reliability	Software Failures
Reliability	Other failures (unknown)
Hardware	Server Age
Hardware	Number of Physical CPUs
Hardware	Availability of LPAR hardware
Hardware	CPU utilization
Hardware	% DB Capability
Hardware	Server RAM provisioned/installed
Hardware	System ASP size
Hardware	% system ASP used
Hardware	Is firmware on hardware current?
Hardware	Use of UPS (uninterruptible Power Supply)

Category	Audit Topic
Hardware	2 separate power feeds to key components
Hardware	Dedicated power circuits for key components
Operating System	Operating System version in use
Operating System	Patch levels (PTF)
Operating System	Patch (PTF) Application/Management
Operating System	Server change monitoring
Operating System	Use of common time service for all devices
Operating System	Applications share a physical and/or logical server – behavior of one application may all apps to perform badly
Operating System	DB Page fault rates
Operating System	Non DB Fault rates
Operating System	Active to Wait (Act-Wait) rates
Operating System	Wait Ineligible rates
Operating System	Active to Ineligible rates
Operating System	Large changes to pool sizes
Operating System	Pool size in MB
Operating System	Paging option for a Memory Pool
Operating System	Max Active Jobs
Operating System	Workload Prioritization
Operating System	Historical Performance
Operating System	Real-time Performance
Operating System	IFS Optimization Type
Operating System	Tuning of application specific parameters / .INI files
Application Server and Web Server	Use of the Web Performance Advisor Tool
Application Server and Web Server	Websphere memory requirements (heap size)
Application Server and Web Server	Websphere - Number of users per Java Virtual Machine (JVM)
Application Server and Web Server	Websphere - Garbage collection frequency
Application Server and Web Server	Websphere - Default user time zone
Application Server and Web Server	Websphere - Thread counts
Application Server and Web Server	Websphere - Thread Keep Alive parameter
Application Server and Web Server	Apache - HTTP Threads
Application Server and Web Server	Apache - HTTP KeepAlive (persistence) parameter

Category	Audit Topic
Application Server and Web Server	Apache - HTTP Cache - DynamicCache
Application Server and Web Server	Apache HTTP Cache - LiveLocalcache
Application Server and Web Server	Apache - HTTP Logging for each log - combined, cookie, agent, referrer, and common logs
Application Server and Web Server	Apache - HTTP User Profile Swapping
Application Server and Web Server	External references by programs
Application Server and Web Server	Application error checking/logging
Networking	Ethernet adapter speed and duplex
Networking	Individual Ethernet Adapter utilization - high numbers may indicate an adapter bottleneck
Networking	Total of Server bytes per second for all major servers, divided by total network bandwidth
Networking	Use of Virtual Ethernet between LPARS
Networking	Maximum Ethernet Frame Size
Networking	LANMAXOUT parameter
Networking	DNS servers/services
Storage	Free disk space as percent of ASP size
Storage	Type of User ASPs in use
Storage	ASP Device Parity Protection Levels
Storage	Mirrored ASPs
Storage	# of physical drives on system
Storage	Disk Drive type
Storage	Individual drive capacity
Storage	Drive rotation speed in RPM
Storage	Use of PGP - WDE (Pretty Good Privacy - Whole Disk Encryption)
Storage	Storage Interconnect
Storage	Fiber Channel Speed
Storage	Hot spare drive available and configured
Storage	RAID level of system volumes and paging files
Storage	RAID level of data volumes
Storage	Average Response time in milliseconds for System Volumes
Storage	Average Response time in milliseconds for Data volumes
Storage	Average disk busy % for Drive/system volumes
Storage	Average disk busy % for Data Drive/volumes
Storage	Write Cache Overruns

Category	Audit Topic
Storage	Input/Output Processor (IOP) or Storage Adapter Utilization
Storage	Analysis of I/O wait states
Storage	Use of Multipath IO to connect to multiple storage controllers
Storage	High Availability (HA) option
Storage	Number of files on a server or in a single directory
Storage	Clean up unnecessary files
Storage	Disk/Storage Maintenance Activities
Storage	Data Backup Policy
Storage	Backup frequency
Storage	Defined Data Recovery window
Storage	Backup location
Storage	Testing of backups and restore procedures and speeds
Operations	Review error logs on a daily basis.
Operations	Log all print activity to a log file – this can be useful information to determine print loads on the networks.
Operations	Scan the list of server jobs to identify and terminate hung or "run-away" jobs
Operations	Capture of server utilization data
Operations	Display outputs of monitoring tools in data center and in IT staff areas to show real-time utilization and status.
Operations	Automatic alerts to IT staff and management when utilization is consistently higher than defined standards.
Operations	Monitor the proper execution of all business critical applications – the data transfers from one system to another, proper operation of EDI, fax, etc gateway, backups, etc.
Security	Security Administration
Security	System Security Level
Security	Resource Security/Authority
Security	Security Audits
Security	Password rules
Security	Known Passwords
Security	Sign on Values
Security	Scheduled availability of the system to users