



# Transforming a DBA group into a Database Center of Excellence

## A Case Study

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# Agenda

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- Definition
- Background
- The beginning – *crawling...*
- Focus areas – *walking...*
- Developing the COE – *running now...*
- Proactive, value added – *nirvana...*
- Benefits to the organization
- Summary

# Definition

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Difficult to find one...

According to Raytheon's Ann Turner a COE is....

'comprised of .... Individuals who provide economy of scale leverage to the business units in providing strategic excellence. COE's (or CFE) develop and grow work force knowledge and skills required to provide the business units with strategic competitive advantage'

<http://www.stc-online.org/cd-rom/1998/slides/t7aturne.PDF>

# Background

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- High profile genome sequencing company
- Large volumes of data
- Reactive
- Poor time and task management
- Same mistakes over and over again
- No user community & DBA team synergy
- No processes for anything

# The beginning – *crawling*....

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- Filter the ‘nonsense’
  - Allow the group to do what they do best
- Articulate, and live, the vision
- Emphasize the ‘team’ over the individual
- Lead, lead, lead – no administrivia !!!
  - Professionals – after-hours are a fact of life, be flexible with work hours
- Respect the individual

# The beginning – *crawling*....

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- Time and task management
  - Fine line between responsiveness of the team & customer perception of bureaucracy
  - Trouble ticketing system
    - > Nothing worked on unless it's in the trouble ticketing system
    - > Phone calls, advice, personal visits OK – though once it requires actions to be performed then ticket required
    - > If longer term help needed, then trouble ticket to log the activity
    - > Use as a task management system, not trouble system

# The beginning – *crawling*....

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- Complete, consistent monitoring
  - > Key to implement common tool that is centralized in nature
- OEM (Oracle Enterprise Manager)
  - > Free and solid enterprise tool !!
  - > Standardized management tool
  - > alert log monitoring
  - > Proactive threshold monitoring allowing alerts prior to errors – the mantra is *'database team should know about a problem prior to the customer, and fix the problem before the customer even knows there was a problem'*
  - > standard events for all db's
  - > All alerts requiring action automatically create a trouble ticket

# The beginning – *crawling*....

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## – Backups

- > Efficiency, completeness and consistency is key
- > RMAN is key tool
- > Standard implementation dependent on database type – development, test, QA, production
- > 100's of individual backups – archive logs, incrementals, full, exports (data or schema)
- > Exception based reporting
- > script for errors – page immediately for review and/or restart
- > script for omissions and non-executions
  - Comparison b/w recovery catalog and definitive list of db's
  - New database – forget to implement backups
  - Change database type, forget to implement standard backup

# Focus areas – *walking*....

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- Develop Processes
  - Share the workload
  - CFR Part 11, SOX, HIPAA – key to compliance is consistency and repeatability
  - Standard database creation steps
  - Standard operating procedures for everything
  - Change control procedure
- Every issue requires long term solution
  - Don't just fix the problem, fix the cause
  - And not just in the one place – consistency across all !!

# Focus areas – *walking*....

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- Standardize
  - Standardize on major & minor Oracle release level
    - > Stability is key, consistency is key
- Transparency
  - Consistency across enterprise
    - > Doesn't matter where database is, who works on database, or where that person is located
- Minimize the # of O/S supported, and minimized the # of servers supported
  - 15 databases on 15 servers?
  - 15 databases on 2 servers?

# Focus areas – *walking*....

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- Consistent, complete, enterprise-wide infrastructure
  - Focus more on value-add activities
  - Hire/train accordingly
- ‘Resume-build’ the team
  - Train, train, train
  - Encourage specialties to broaden depth
  - Brown bags within the team
  - Think ‘out of the box’ with training
  - Training shouldn’t necessarily be specific to technical skills
  - Require/encourage certification

# Developing the Center of Excellence – *running now...*

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- Actively look for projects
  - Review project spreadsheets
  - Encourage team to talk to the business
  - Listen to suggestions from everyone
- Presentations to internal customers, peers
- Training classes offered
  - Social combined with education
  - Offer training catalog

# Developing the Center of Excellence – *running now...*

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- Interdepartmental relationships
- Flexibility
  - Anyone can cover for anyone
  - Can take on anything as a team
- Self-help website
  - White papers, SLA's, real time OEM reports, training course catalog, downloads, backups, SOP's, presentations, technical library, manuals, enterprise db availability

# Proactive, value added – *nirvana*....

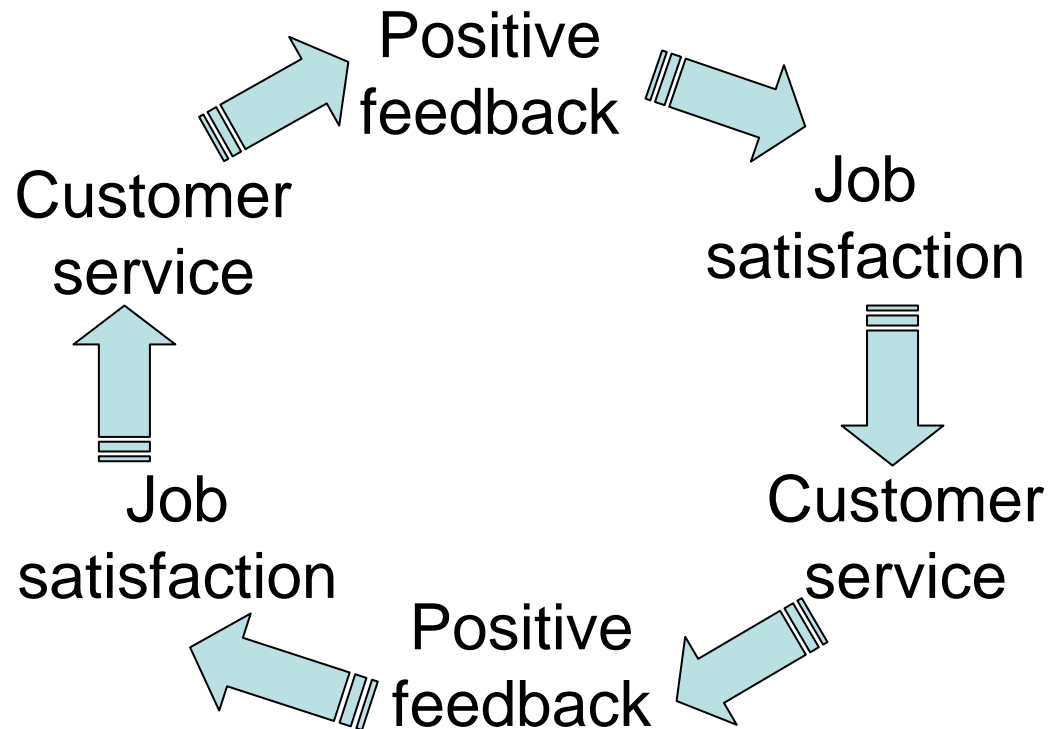
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- Partners with business – adding value
- Participate in design, testing, implementation & operations
- Highly Performing systems & people
- Customer service is the focus
  - New issue of time management 😊
    - > balance is everything
    - > working 60+ hours a week is only a short term capability

# Proactive, value added – *nirvana*....

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## Self perpetuating cycle – feeds on itself



# Benefits to the organization

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- Employee retention
  - High job satisfaction
  - High morale
  - Improving skills all the time
- Reduces TCO of database infrastructure
  - Less effort to manage day-to-day, able to then add value to business
  - Lower database software costs
    - > Based on optimization of available resources
  - Higher overall availability due to consistency and completeness
  - Quicker turnaround of tasks

# Benefits to the organization

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- Completeness and consistency
  - move forward with compliance adoption for HIPAA, CFR Part 11, SOX
  - Allows ITIL adoption
- High availability
  - Best practices = high availability
  - Active monitoring = high availability
  - Developers & COE as a team = high availability
  - Efficient use of resources = high availability

# Benefits to the organization

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- Highly performing
  - Highly skilled = performance overdrive
    - > Physical database, individuals
  - Benefits to customers, clients
- Encourages and motivates others to be the best they can be
  - Customer service is contagious
  - Job satisfaction is contagious
  - Excellence in everything is contagious

# Summary

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## Phased approach with small steps

- Phase 1
  - Reduce day-to-day reactive tasks by automating, monitoring – consistency and completeness is key
  - Build the team
    - > as a manager, protect from the nonsense
    - > As a team member, participate and help other team-members
  - Build procedures and process
  - Manage the tasks, don't let the tasks manage the team
  - Standardize and optimize
- Phase 2
  - Expand skills, encourage certification
  - Build pride in knowledge
- Phase 3
  - The mantra is 'customer service'
  - Add value to the business
  - Encourage long term, bigger picture thinking

Its FUN and SATISFYING to be in a Center of Excellence !!!



# Questions??

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