

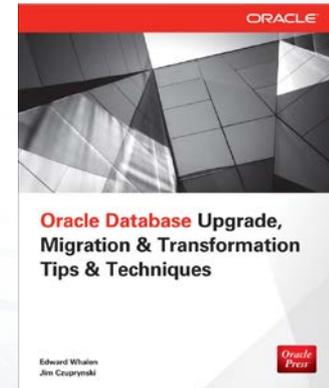
DBA, Heal Thyself: Five Diseases of IT Organizations and How to Cure Them



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My Credentials

- 30+ years of database-centric IT experience
- Oracle DBA since 2001
- Oracle 9i, 10g, 11g OCP
- Oracle ACE Director
- > 100 articles on databasejournal.com and ioug.org
- Oracle-centric blog (*Generally, It Depends*)
- Regular speaker at Oracle OpenWorld, IOUG COLLABORATE, and OTN ACE Tours
- Oracle University instructor – core Oracle DBA courses



Who We Are

- > **Solution Provider focused on**
 - > Technology Solutions
 - > Comprehensive Service Offerings
- > **Extensive reach** — U.S., Canada, and the U.K.
- > **\$700M** annual revenue with over **\$100M** in Services
- > **Industry Certifications** across a broad selection of best-in-class IT manufacturers and technologies
- > **Significant investment in technical staff and facilities** to support our clients' projects



Today, Being an Oracle DBA ...



... is like being a pilot, because no one really notices us when the plane is flying *just fine*.



No, wait ... maybe it's more like being a doctor, because *we always have bad news*.



OK ... make that *this* doctor.

Disease #1: Uniquitis

Uniquitis (u-neek-i-tis) n.: The belief that your IT organization's problems are unique and that no other organization is facing or has ever faced precisely these same problems

Symptoms include:

- Statements overheard:
 - *Our application workload demands are like none other!*
 - *Only our {team | developers | DBAs | CIO} really understands what we're trying to accomplish here!*
 - *We don't need to attend conferences – our team knows what it's doing!*
- Refusal to:
 - Adapt to new releases of Oracle (cf. **Tengenertia**)
 - Adapt development style to new industry trends like Agile or DevOps



Prognosis:

- Unchecked, this leads to *ever-narrowing* organizational vision
- Independent thought and creative problem solving may be discouraged in favor of organizational inertia ...
- ... but DBAs are in the best position to rise to the challenge!



Recommended Treatments:

- ✓ Collaborate with other DBAs in your industry
- ✓ Communicate with other IT professionals
- ✓ Attend conferences to get new perspectives
- ✓ Don't be afraid to say: "Surely, someone else must have already encountered these challenges!"

Disease #2: *HypoRMANosis*

HypoRMANosis (hi-po-ar-man-O-sis) n.:

An extreme reluctance to leverage all of the features of Oracle Recovery Manager to back up, restore, and recover Oracle databases

Symptoms include:

- DBAs who say:
 - *We've always used {3rd party toolset} and have never had a problem.*
 - *RMAN can't handle our required RPO or RTO SLAs.*
 - *Our system / storage administrators take full responsibility for our backup {and disaster recovery} strategies for all databases.*
- Under-utilization of key RMAN features:
 - Hardly (or **never!**) leveraging the **Fast Recovery Area (FRA)**
 - Rarely testing restoration and recovery strategies
 - Failure to leverage **FLASHBACK** features

Fighting *HypoRMANosis*



Prognosis:

- If your storage administrator won't be standing next to you when it's time to restore and recover your databases ... then *why is he empowered to tell you how best to back them up?*
- Beware of **BLI (Backup Latitudinal Inertia)**



Recommended Treatments:

- ✓ Test multiple restoration and recovery scenarios
- ✓ Valiantly challenge RPO assumptions with **FLASHBACK** tools and features (especially **Flashback Versions Query**)
- ✓ Get comfortable with advanced RMAN techniques like **TSPITR** and **FLASHBACK DATABASE**

Disease #3: *Tengenertia*

Tengenertia (10-gen-UR-shia) n.:

A tendency to operate an Oracle 11g or 12c database like it's still an Oracle 10g database; also, exhibiting extreme resistance to explore and adopt latest features of current database release

Symptoms include:

- DBAs who say:
 - *I don't have time to learn dozens of new features – I've got hundreds of databases to manage!*
 - *I don't trust the latest release of Oracle RDBMS – it's really buggy.*
 - *I've got a bunch of scripts to handle {insert ignored feature here}.*
- Ignoring key features designed to make an Oracle DBA's life easier:
 - Avoiding use of Enterprise Manager 12c Cloud Control
 - Clinging to **STATSPACK** instead of *The Three A's (ASH, AWR, and ADDM)*
 - Ignoring *beneficial* features of the optimizer like *SQL Plan Management* and *Adaptive Cursor Sharing* – often with *hints*

Overcoming *Tengenertia*



Prognosis:

- Database application performance may actually be *several orders of magnitude worse* than optimal
- Number of databases a single DBA can manage is *much* lower
- Oracle DBAs will thus become increasingly *over-burdened*



Recommended Treatments:

- ✓ ***Let It Go!***
- ✓ Like avoiding Type 2 Diabetes, *lifestyle change* is required
- ✓ Start with the latest release's New Features Guide
- ✓ Anticipate – even embrace! – arrival of the next release's newest features

Disease #4: *Toolichondria*

Toolichondria (tul-e-KON-dri-a) n.:

Extreme resistance to leveraging built-in tools or other licensed features of Oracle Database

Symptoms may include:

- Statements like:
 - *These {Oracle | 3rd Party} tools are **so expensive!***
 - *We want to avoid **vendor lock-in.***
 - *We've always used [insert obscure tool here] because it's {free | open source | not Oracle}.*
- Hanging on to the **old ways**:
 - Running the same performance tuning scripts from 2001
 - Tailing or script-scraping text-based alert logs
 - Bringing a 20th-century Swiss Army knife to a 21st-century gunfight

Treating Toolichondria



Prognosis:

- You can't *manage* what you can't *measure* – so be sure to *measure accurately*
- “Measure only once” usually equates to “cut three times”
- The only throat you choke may be your *own!*



Recommended Treatments:

- ✓ RTFM! (**R**ead **T**he **F**ine **M**anuals)
- ✓ Embrace the tools as force multipliers – they enable the DBA on her journey to becoming an “**Army of One**”
- ✓ Experiment in **DEV**, Leverage in **QA**, Promote in **PROD**
- ✓ What's better than “only one throat to choke”? Zero!

Disease #5: Idiomyopia

Idiomyopia (i-di-o-my-0-pe-a) n.:
Tolerance of Incompetent Oracle DBAs

Symptoms include:

- Poor initial screening, yielding a pool of “*purple squirrels*”
- Hiring under-qualified DBAs based *only on what their CVs or colleagues claim*
- Not performing *extensive technical screening under controlled conditions*
- *Retaining* under-performing / incompetent DBAs because hiring efforts were *exhausting*

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What we wish we had ...

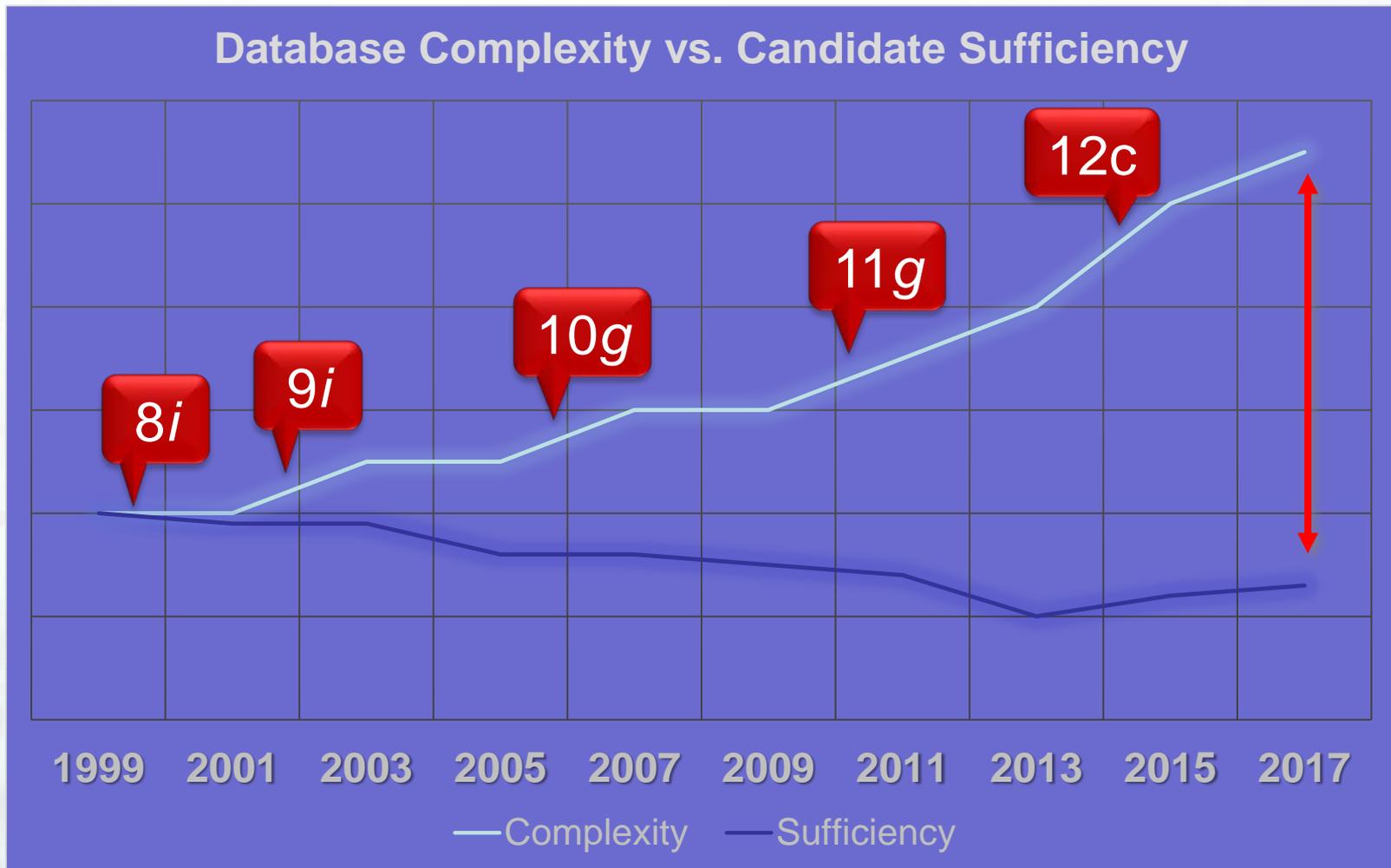
... and what we tend to get!



ORALCE®

Cerfitied Idiot

Database Complexity vs. Candidate Sufficiency



Note: These estimates are unfortunately anecdotal, but if anyone would like to challenge them with actual statistics, please share your sources!

Defeating *Idiomyopia*



Prognosis:

- Recognize the painful reality – avoid denial
- Doing nothing means this cancer will metastasize to other parts of your IT organization

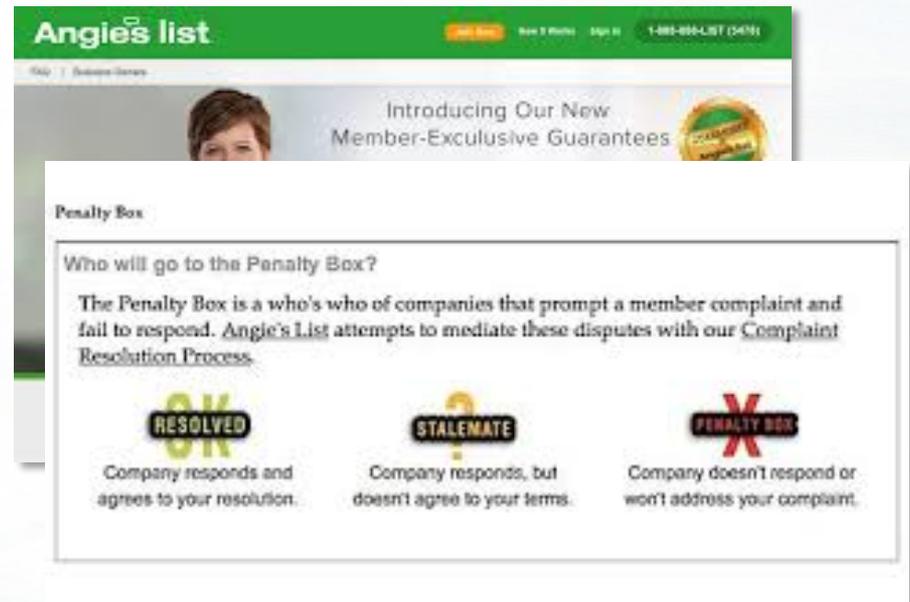


Recommended Treatments:

- ✓ Immediate surgery to remove the tumor
- ✓ Triage to eliminate future vectors of infection
- ✓ Monitor remission
- ✓ Remain hopeful for an eventual cure

Idiomyopia: Hope For a Cure?

Option #1:
Self-Policing
"Angie's List" works for plumbers, craftsmen, even doctors ... so why not for DBAs?



The screenshot shows the Angie's List website interface. At the top, there's a green header with the Angie's List logo and navigation links. Below that, a banner introduces a new member-exclusive guarantee. The main content area is titled "Penalty Box" and explains that it lists companies that fail to respond to or address member complaints. Three outcomes are shown: "RESOLVED" (OK), "STALEMATE" (?), and "PENALTY BOX" (X).

Angie's list

Introducing Our New Member-Exclusive Guarantees

Penalty Box

Who will go to the Penalty Box?

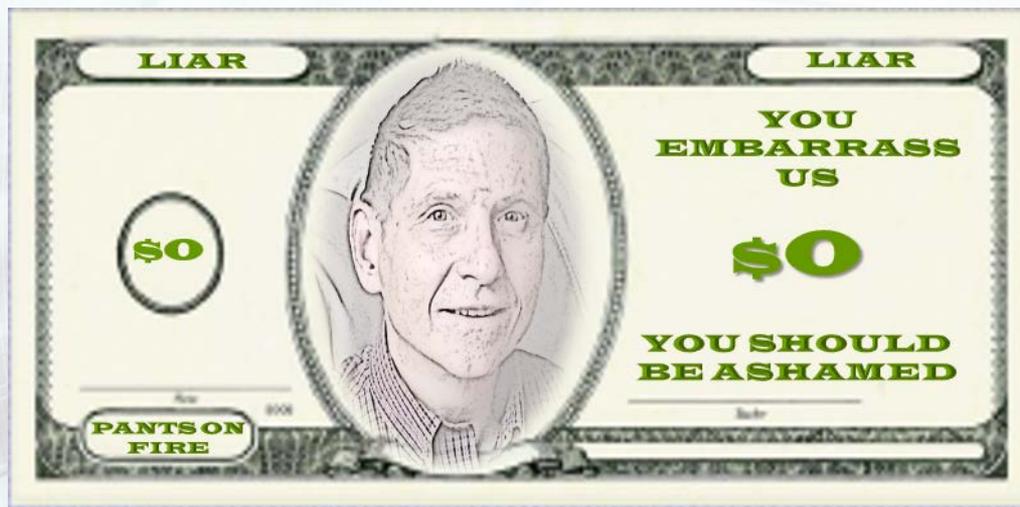
The Penalty Box is a who's who of companies that prompt a member complaint and fail to respond. Angie's List attempts to mediate these disputes with our Complaint Resolution Process.

RESOLVED
Company responds and agrees to your resolution.

STALEMATE
Company responds, but doesn't agree to your terms.

PENALTY BOX
Company doesn't respond or won't address your complaint.

Option #2:
Embarrassment
Prosecution for fraud isn't allowed ... but nobody said anything about shaming!



Summary: Surviving the Threats Requires ...

- **Uniquitis:** Talk amongst yourselves!
- **HypoRMANosis:** Embrace RMAN
- **Tengenertia:** Fear not the future!
- **Toolichondria:** Investigate, experiment, implement
- **Idiomyopia:** Cull out incompetence

Thank You For Your Kind Attention!

If you have any questions or comments, feel free to:

- E-mail me at jim.czuprynski@onx.com
- Follow my blog (***Generally, It Depends***):
<http://jimczuprynski.wordpress.com>
- Follow me on Twitter (**@JimTheWhyGuy**)
- Connect with me on LinkedIn (**Jim Czuprynski**)