

MANAGING THE MODERN DATABASE

Part I:

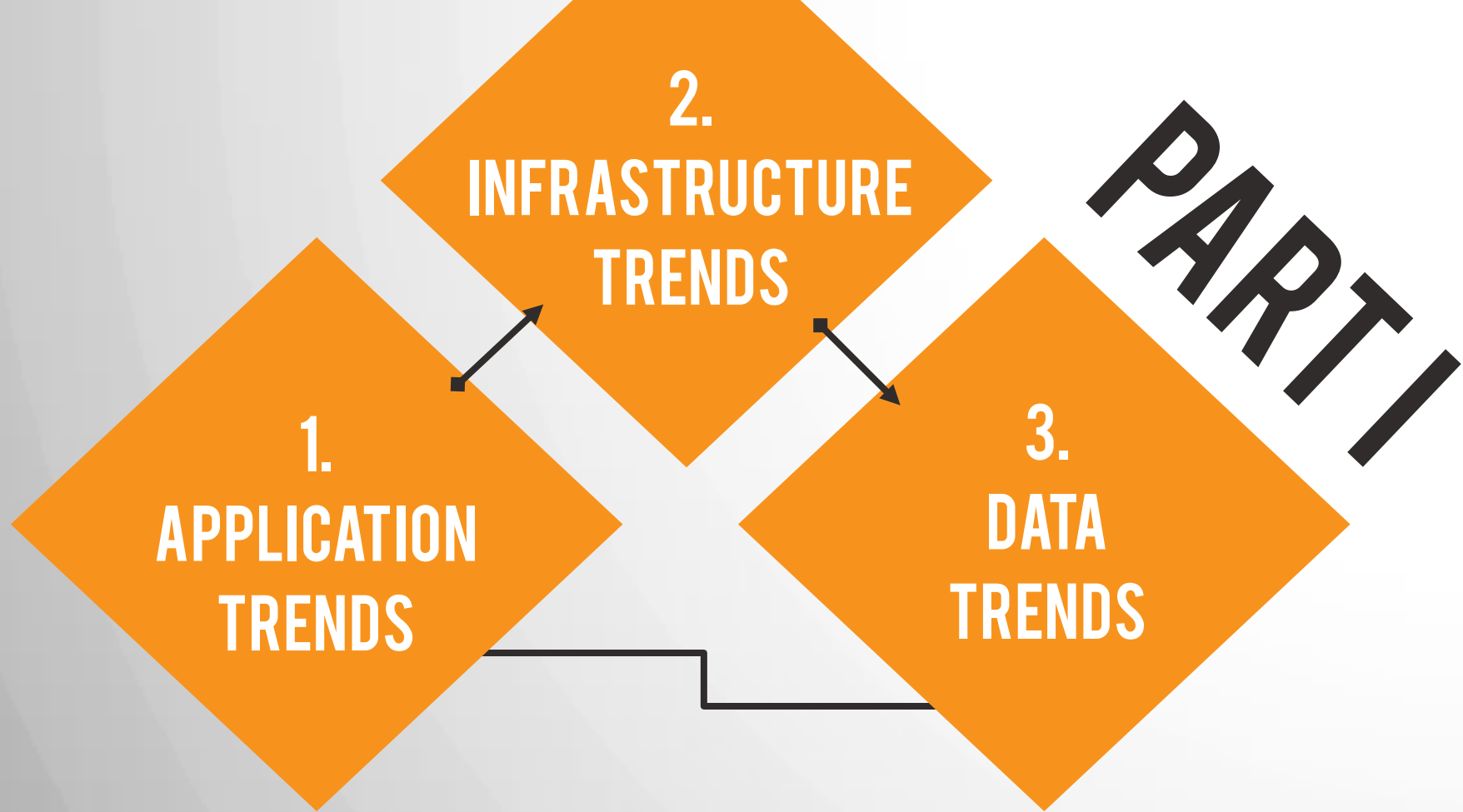
7 Trends in 2014 to Keep Ahead

- ▶ 7 tech, business application and social trends affecting database management
- ▶ How these trends converge to affect the database and DBAs

Part II:

A (NEW) Day in the Life of a DBA

- ▶ Evolution of core support functions, DBA roles, and technology trends
- ▶ Extra Resources, including a checklist for DBA providers!



Ahhh, 2014. The year of...everything. Well, the year of migrations, integrations, another kind of sprawl, another way to silo, and more. Fortunately DBAs don't have to worry about "growth hacking." (Don't ask.)

You guessed it: All of these trends affect the database and those who manage it. This section will help keep you on top of things.

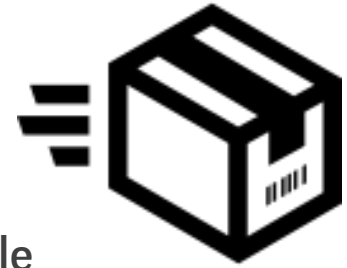
APPLICATION TRENDS



DBAs will need to be even better friends with app and dev team members. “Have I mentioned how much I like your new cube configuration? You have a gift, my friend. You!”

1. **Integration is the watchword.** Complex, data-intensive legacy business applications, such as ERP, payroll, and many others are mostly staying put, for now. However, they will be integrated with new SaaS services, as well as cloud-based and external software to keep processes fresh and efficiency high.
2. **Performance is still everything.** Application performance problems often lead back to the database, which can be the nastiest of bottlenecks—and the most difficult to find amongst log files, code, and architecture. Every minute counts when the app is linked to revenue.
3. **Customers take power! (And create and consume more data in the process.)** Customer relationships are now more transactional—buyers, including B2B companies, are conducting much more online research and comparison shopping before making a purchase. Companies interested in investing in technology that gathers this behavioral information will be faced with more unstructured data than ever. The “digital experience,” mobile engagement, and inbound marketing and lead generation tools, will rely on this information to be responsive.

INFRASTRUCTURE TRENDS



Systems architect heads to Cloudville without poor DBA, yet has a nagging feeling someone is missing from the IT family...
"DBAAAAAAAAAAAAA!"

4. **Organizations are doubling-down on database cloud services.** DBAs will need to learn new cloud technologies and modernize their infrastructure in preparation for working closely with developers, if database cloud services are on the horizon for your organization.
5. **"Ok, we're moving some of our legacy systems to the cloud!"** Don't forget the data (or applications)! A surprising number of architects don't understand that moving legacy systems to the cloud also includes the applications and their data. Yikes! Senior database management experts set strict methodologies and are trained in the specific technology being managed. A senior database expert can play an integral part of both the data and application processes of system migrations.

DATA TRENDS

Now even DATA IS SPRAWLING.
“Hey! Get your feet off the
coffee table!”



6. **Companies are outgrowing their original plans for DBA support.** Silos, shadow IT, storage prices drop, analytics technology improvements, SaaS and mobile collection of more data than Gordon Moore could've ever imagined in 1965. Organizations with no previous need for full-time DBAs with niche expertise might come up short in skill sets when setting out to tackle these challenges.
7. **So, what exactly is the ratio of database to DBA?** As databases grow, they need more tuning, backup, recovery, and upgrade support. And according to Noel Yuhanna in a post written for Forrester, “The average database-to-DBA ratio is often constrained by the total size of the databases being managed, which tends to be around five terabytes per DBA.” However, this can vary widely based on database technologies used. Over-worked DBAs are at risk of making serious errors, which can result in costly downtime and hours of troubleshooting.



A (new) day in the life of a DBA. Things are getting puh-retty interesting.

- > What should core database support include?
- > What skills should a modern DBA have?
- > Are there different kinds of DBAs?

PART II

CORE DATABASE SUPPORT

Ongoing Operations

- > Administration
- > Monitoring through native or advanced tools
- > Troubleshooting
- > Backup and recovery
- > Application support
- > Ongoing support and maintenance

Complex Projects

- > Data warehousing—development and beyond
- > Database migrations
- > Database server consolidation
- > Updates and patches
- > Virtualization, cloud, and Big Data
- > New feature recommendations
- > Master data management (MDM)
- > Tuning and performance

On-Demand Experts

- > Platform-specific knowledge
- > Cross-technology experience
- > Business intelligence planning and strategy
- > 24x7 availability
- > Dedicated DBA resource
- > Senior-level, technical program managers
- > Elastic staffing (specialties, efficiencies, and cost savings)



THE MODERN DBA

Supporting Tech, Strategy, and Efficiencies

The modern DBA often specializes in strategic aspects of database management, while maintaining an understanding of basic requirements. Larger organizations sometimes opt to hire specialist DBAs to handle complex environments. While other organizations choose to partner with a database management provider for elastic staffing to meet fluctuating needs.

Application DBA

- > Designs database around specific application and business needs
- > Expertise in complex coding, requests, and debugging

Data Modeler

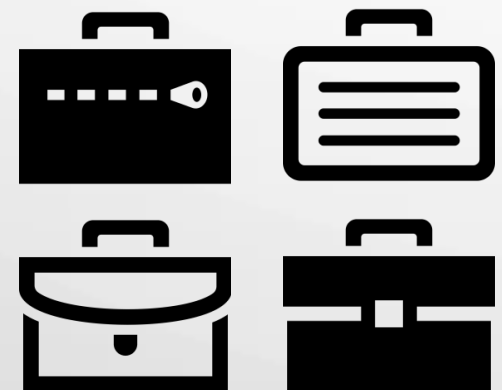
- > Logical database design; corporate data model
- > Assessing data requirements
- > Designing conceptual and logical data models
- > Educating other DBAs on data models

Database Architect

- > Design and implement new databases for new or existing applications
- > Typically not involved in maintenance, administration, or tuning

System DBA

- > Technical focus vs. business/strategy
- > System administrator
- > Tuning and performance
- > OS work and interaction with network components
- > Complex DBMS parameters





ABOUT US

Modern database management can feel like a juggling act. We're here to lend a hand...or two. Our database services can scale up or down as you need them—from 24x7 monitoring to full-service DBA—with no 40 hour/week requirement.

- > Our average turnover rate is less than three percent.
- > The average experience level of our employees is 10+ years, and they have worked for Fortune 1000 companies.
- > We understand industry-specific needs of databases and the supported applications.
- > All team members are based in the U.S.



Complete service set: Monitoring, administration, performance, and strategic projects

U.S.-based DBAs with 10+ years' experience; leading technology and tools

Continuous support: Nights, weekends, and across time zones—24x7x365

Simple pricing: Fixed fee with no surprises or weekly minimums; custom service bundles

FROM MONITORING TO FULL-SERVICE DBAs, YOU SELECT YOUR LEVEL OF SERVICE, AND WE SCALE TO MEET YOUR NEEDS.

"ManageForce has been instrumental in helping us to gradually convert our strategic mainframe based (ADABAS/NATURAL) applications to a Microsoft SQL Server and .Net platform. ManageForce's flexible service offerings allow me to tap them for assistance 'On-Demand' when we require assistance, helping us to avoid the typical consulting model of expensive 40 hour per week, time & material engagements. ManageForce is a reliable business partner that we know we can count on."

Jim Wilson, IT Director
Norfolk Southern Corporation

"We've learned the hard way how difficult it can be to find high quality Oracle Database Administrators in today's marketplace, so we reached out to ManageForce to help us with this effort. In a very quick period of time, and in a very cost-effective manner, ManageForce was able to help us solve this burning need. As a result, they've earned our trust as a partner, and we've continued to reach out to them for future IT requirements."

Dan Johnson, IT Director
Dayton Power & Light

Modern Database Demands

Many IT leaders find that on-demand access to proven database experts helps balance strategic initiatives with ongoing database monitoring and maintenance. While it might not be practical to hire full-time or specialized DBAs, it can be very cost-effective to right-source to trusted senior experts, as your needs evolve or fluctuate.

While industry standards are necessary, it's important to ensure your provider doesn't take a "one skill set or model fits all" approach to database services. The DBA role can cover a wide variety of functions—all critical to the success of modern database management.

Equally crucial is that your main point-of-contact is a familiar technical subject matter expert and not simply a project manager or random junior-level DBA.

Our customers are seeing a complete shift in database and information demands—not to mention juggling internal coverage for business-as-usual support.

Database and information management are evolving to become a part of a business—rather than—technology architecture.

So what does that mean for the modern database and the people who help manage related technology?

- > DBA elasticity is the #1 strategy to successful applications projects that rely on databases.
- > 24x7 monitoring is the first line of support to help ensure data remains available to the C-suite and other stakeholders.
- > A wide range of DBA skill sets, available when needed, will position your organization for any data challenges ahead.

www.manageforce.com



Our [data sheet](#) offers more information about best practices, our services, and approach

SERVICES

Monitoring, Performance, and Administration

- > Daily maintenance for all of your database environments, e.g., SQL Server, MySQL, Oracle, DB2, PostgreSQL
- > Monitoring and patching on-demand, as needed
- > Server environment support, including Windows, Unix, Linux, iSeries/AS400, and others
- > Troubleshooting and root-cause analysis and documentation Proactive bug alerts
- > Backup and recovery



Strategic Projects and Consulting


- > Performance tuning of production databases; assessment services
- > Large-scale upgrades
- > Information management, such as business intelligence, Big Data, archiving, and purging
- > Backup, recovery, and storage assessment

Modernization

- > Cloud database migration and support
- > Virtualization of your database environments
- > Database server consolidation
- > Advanced feature support

RESOURCES

- ↘ Database Support Model: Our Support Approach and Procedures Built Around You
- ↘ Database Toolbox: Standard Tools Used as Part of Database Support and Management
- ↘ Checklist: Tough Questions to Ask Your Remote DBA Provider
- ↘ Questions: info@manageforce.com
- ↘ Call us—we're ready to help:
1-877-351-4491



IT LEADER TOOLKIT:

TOUGH QUESTIONS TO ASK YOUR REMOTE DBA PROVIDER

It's necessary to ask tough questions related to three key areas as part of database management and monitoring.

The remote DBA provider's answers will be a strong indicator of the quality of service you can expect to receive.

You can use this information as a high-level checklist to create a strong short list of providers.

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