Title:

Managing and tracking database deployments

Abstract:

We've all been there, managing multiple environments that all have different SLA's and release schedules. With systems, managing configuration files can be automated with something like Chef or Puppet. With code deployment, tools can easily push out the latest release. Databases present a unique challenge where you can't just push out a current state. You have to identify and walk through every change that has been applied and likely have to install the changes in the same order throughout environments.

When addressing database deployments there are a handful of problems that need to be addressed:

- Meeting change control requirements

- Provide reproducible state via versioning

- Ability to manage and track one-off deployments that fix application data issues

- Ability to deploy to multiple servers from a central location

- Ability to track what deployments are needed to bring an environment to current and offer a "one touch button" to execute necessary changes

- Ability to manage differences between environments (test may point to a sandbox site while prod doesn't)

- Work with multiple database platforms (we currently have things in MSSQL, MySQL and PostgreSQL)

At CoverMyMeds, we evaluated a number of tools and could not find one that solved all of the problems above. Having faced some of these problems for years, CJ decided to develop and open source a tool called dbdeployer. This talk will go over how CoverMyMeds uses dbdeployer in our various environments including production and the benefits we have seen from implementing it into our workflow.

About the Author:

CJ Estel has 15 years experience as a MySQL database administrator that overlaps with a number of years of Systems Administration. CJ has managed databases and systems that are Highly Available (HA) and involve replication and availability across multiple datacenters. CJ joined CoverMyMeds in May of 2014 to embark on a journey of migrating from Microsoft SQL Server to PostgreSQL.

Who should attend this presentation:

Database Administrators and Systems Administrators are the primary audience for this talk. Developers would also benefit from some of the talking points in the presentation.

Take back to work:

Attendees will learn the following:

- Best practices for deploying database changes

- Some of the issues you get when you have hundreds of database servers

- Some of the issues you encounter with multiple data-centers

- How to use a tool that addresses all of the above items and makes database deployments as easy to work with as code or configuration management deployments

Topics Included:

Centralized database deployment for DML and DDL changes

Reporting on where database changes have been deployed

Benefits of working with a DBA early in the development processf