Friction to Freedom: Fueling Agile Development Through Secure Data Automation
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About Me – Nick Suwyn

1. Principal Systems Engineer – Choice Hotels
2. Data Management
3. Infrastructure
4. Coach
1. Headquartered in Rockville, MD. with IT in Phoenix, AZ.
2. Brands: Comfort Inn, Comfort Suites, Quality, Sleep Inn, Clarion, Cambria Suites, Suburban, Econo Lodge, Rodeway and newly added Woodspring.
3. One of the largest and most successful lodging companies in the world
4. More than 6800 hotels, 500,000 rooms, 40 countries and growing
5. Forbes – America’s Best Midsize Employers List 2018
6. USA Today’s 10Best – “Best Hotel Loyalty Program” -33 Million Members
What is Friction?

**Force of Friction**

**Normal Force**

**Applied Force**

**Force of Friction**

**Coefficient of Friction** (Determined by the type of surface in contact)

**Force Normal** (Usually same as gravity)

\[ F_f = uF_n \]
Friction: Good or Bad?
Friction: Necessary And Leads to Efficiencies
Data Friction

Friction

Delphix

Data Size

Refresh Frequency

Data Security

Data Size
Velocity of Innovation is a Data Friction Problem

“...data is often a thorn in the side of DevOps. It’s costly to store, slow to copy, difficult to move and hard to govern. Simply automating a series of steps is insufficient if the underlying data isn’t lightweight, elastic and secure. As data has grown in size and complexity, these challenges have become increasingly difficult to overcome.

The result is data friction, and it keeps teams from being able to satisfy the demands of the business. Overcoming that friction requires pushing past tried-and-true practices and embracing continual reinvention.”

Forbes - Why Velocity Of Innovation Is A Data Friction Problem
Increased Velocity by Addressing Forces of Friction

Friction Force\textsubscript{1} - Realistic production-like data in test environments

Friction Force\textsubscript{2} - Refresh test data more frequently

Friction Force\textsubscript{3} - Ensure test data is secure
Friction Force – Production Data in test environments

• Requires additional storage
• Data needs to be secure
• Data needs to be usable and realistic
• Repeatable across systems
Friction Force_2 – Refresh of Test Data

- More frequent refreshes
- Automated
- Self-Service – eliminating dependency on Infrastructure teams
Friction Force$_3$ – Secure Test Data

• Protect sensitive data

• Ensure regulatory compliance

• Maintain usability of test data
• Production data continuously ingested into Delphix Dynamic Data Platform
• Provision virtual database
• Profile and mask data using Delphix Dynamic Data Platform
• Virtual DB owner has self-service ability to:
  Refresh data, create bookmarks, rewind data, refresh data, branch data, etc.
Friction to Freedom: RESULTS

- Production Data in test environments
- Time to refresh is measured in hours vs days
- Have the ability to refresh frequently
- Sensitive data is secure
- Reduced time in troubleshooting data related issues
Delphix @ Choice – Private Cloud

Source Databases
MSSQL
Informix
Oracle

MSSQL Pre-Provisioning
Target Server *

Replication to non-PCI zone engines

PCI Internal DMZ

Masking Engine

Target Databases
MSSQL
Informix
Oracle

REG Internal DMZ

DEV/QA/LT DMZ
Delphix @ Choice – Public Cloud

Production

AWS Aurora → Clone → Golden Image

Test

Golden Image → Mask → Re-clone

Golden Image → Clone → Backtrack
• CLI & API
• Automation
• Self Service
Thank You!

Questions / Comments / Concerns