

NUTANIX™

ERA-DBaaS

VARUN VERMA
Solutions Architect
Databases and Business Critical Apps

APRIL 2020

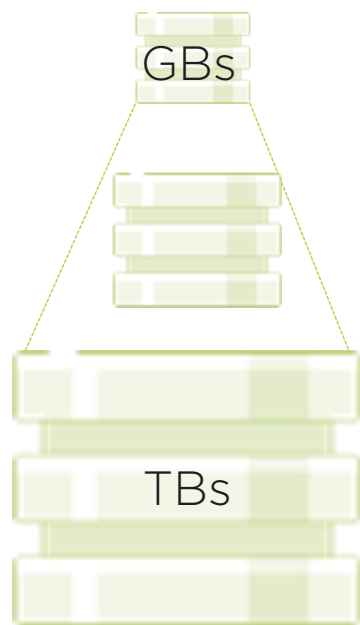
Database Operations Complexities

Multiple Engines

ORACLE®



Different Sizes



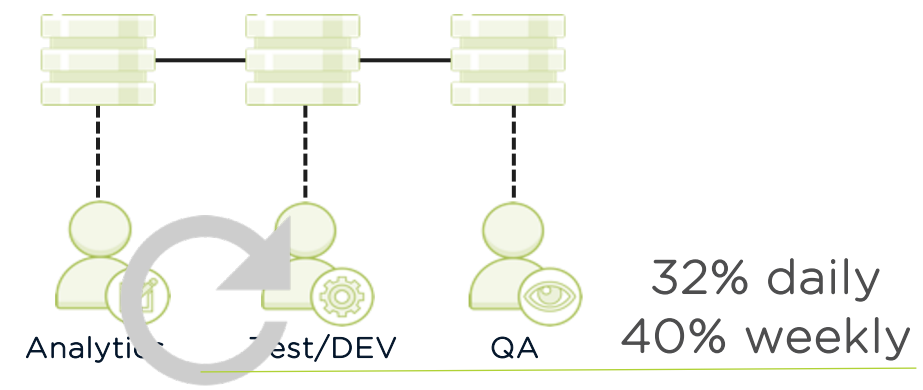
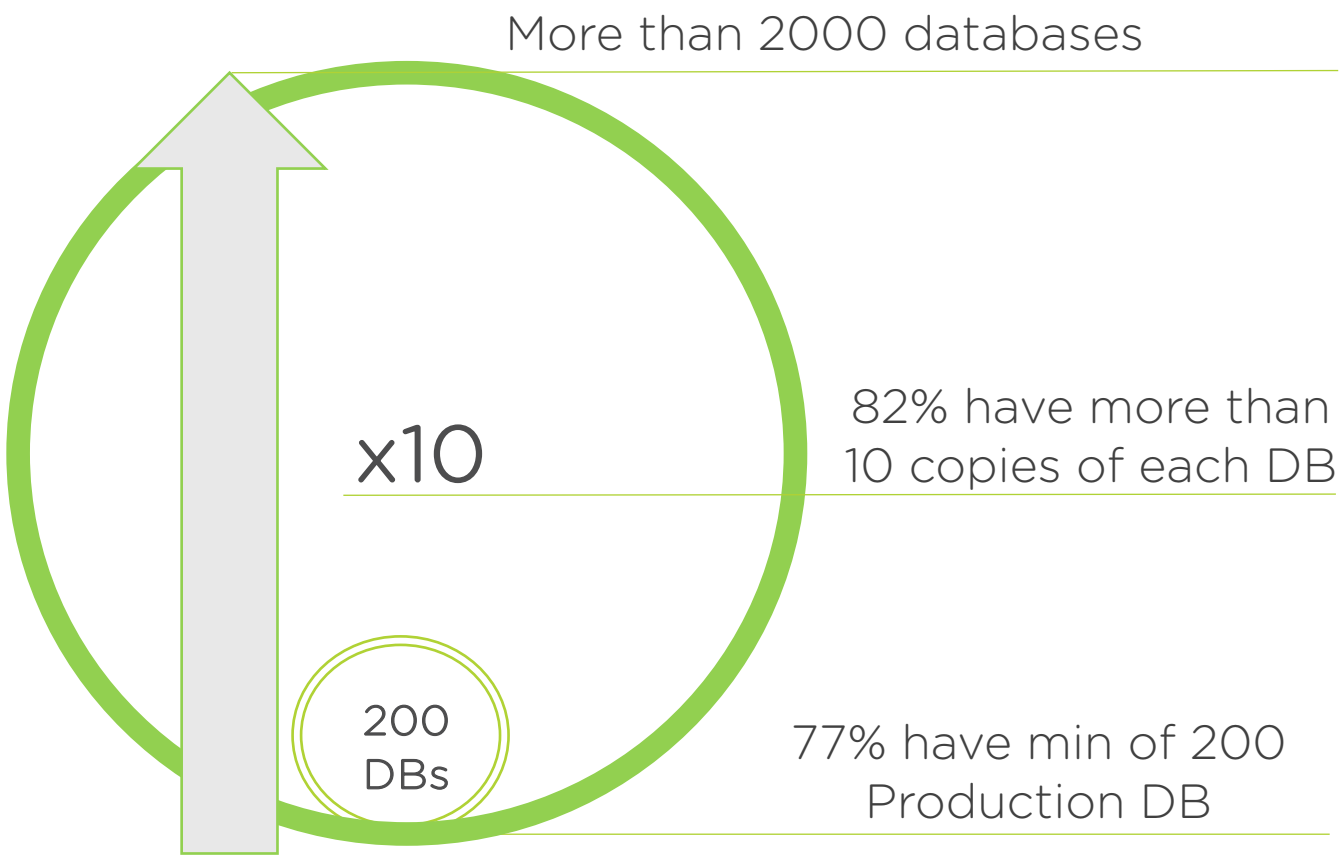
Lots of Copies



Complex Operations



Copy Data Problem: Sprawl of Secondary environments



- Storage explosion - Copy data costs ~\$56B by 2020
- Time-consuming & lack of automation
- DBA unfriendly solutions & low rate of refresh

500 N-American Organizations

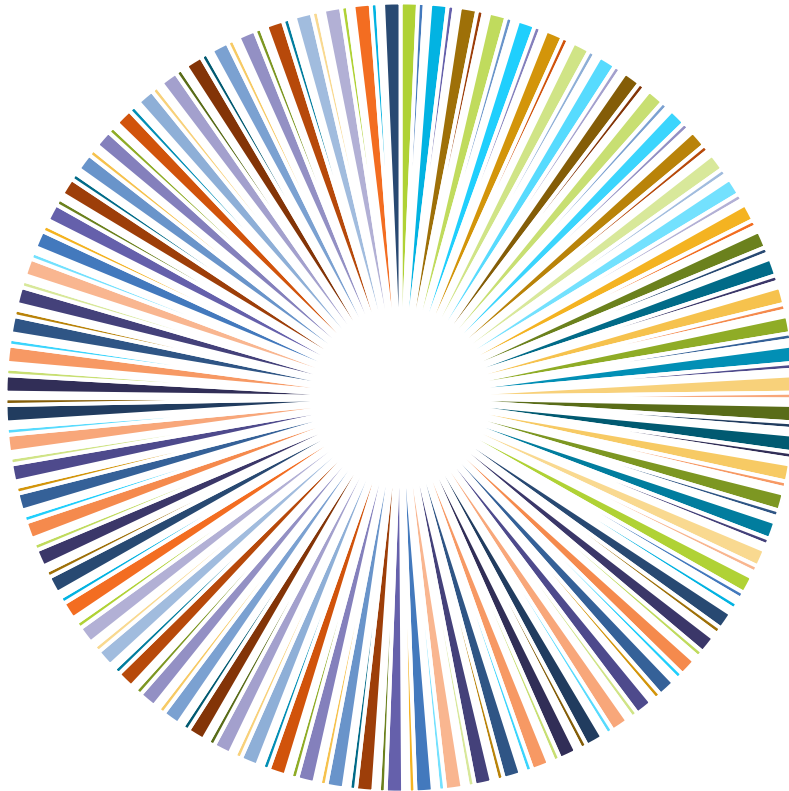
*IDC Copy Data Management report 2016 & 2018



Patching Config Pollution : Total DBs: 2367

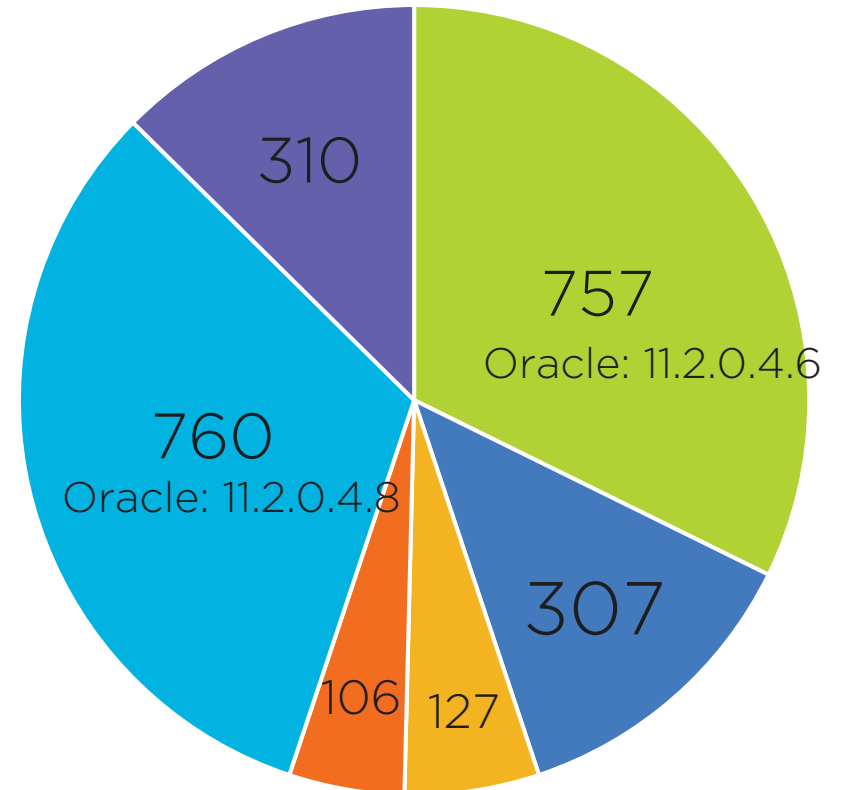
at a Network Giant

Current State



383 distinct software configs

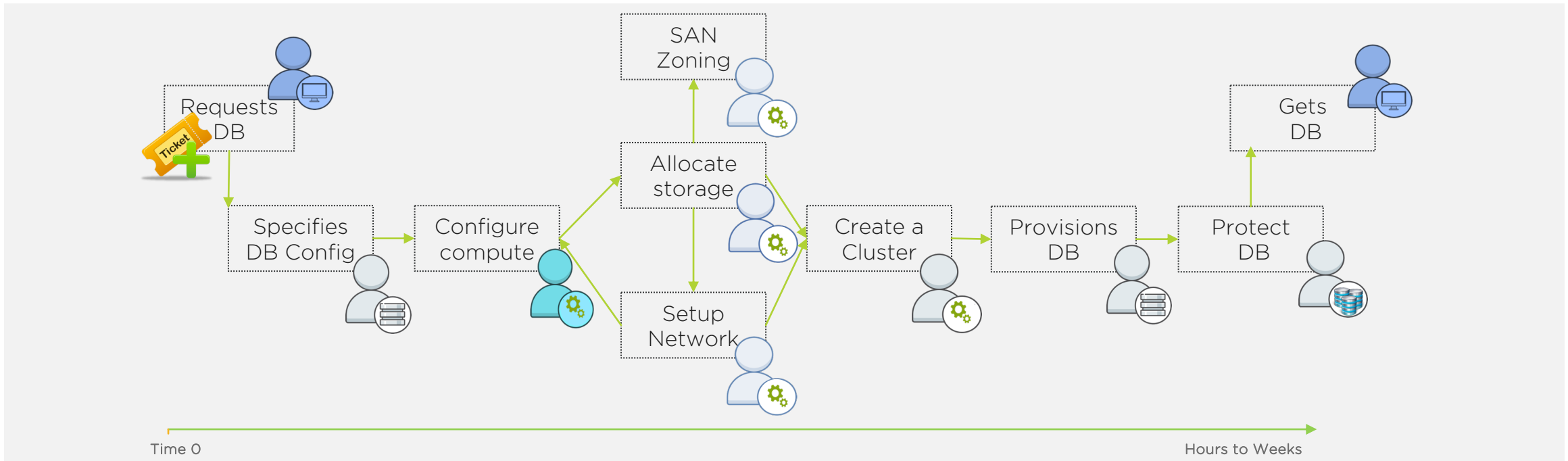
Desired State



6 software configs



Traditional DB Provisioning Process



- Takes hours, days, or weeks
- Involves multiple teams
- Introduces friction & complex process
- Lowers business agility
- Decreases innovation rate
- Increases time to market

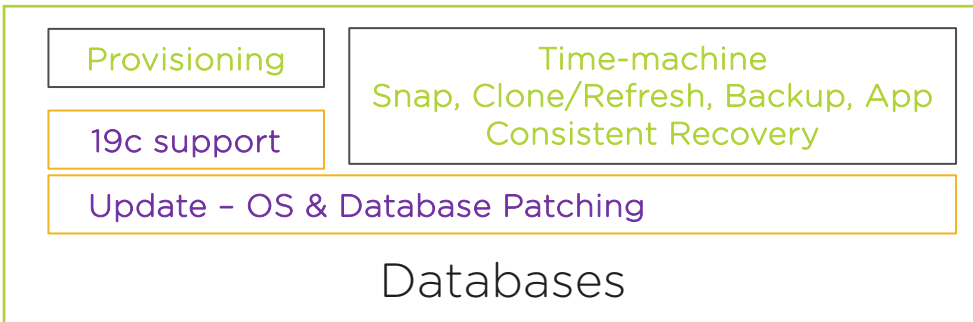
Nutanix Era brings DBaaS for the Enterprise Cloud



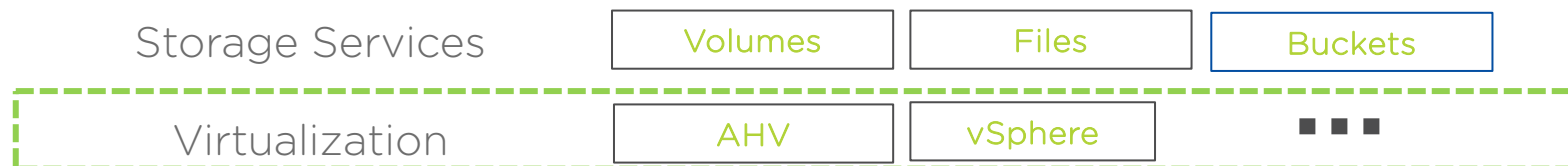
API GUI CLI

Tech-Preview

Platform Services



Infrastructure Services



Acropolis - HCI Platform



Nutanix Era Use Cases For Oracle Databases



One-Click Provisioning

- One-click provisioning for Oracle Single Instance and RAC Clusters
- standardization through profiles
 - Compute
 - Networking
 - DB parameters
 - Combo: DB+ OS



Copy Data Management (CDM)

- One Click Database snapshot in minutes
- One-click database space optimized cloning/ refresh to any specific Point in Time(PIT)
- Post-hooks for running data-masking scripts



PSU-Patching

- One-click database patching
- Out of band patching of databases to eliminate database config sprawl
- Testing new database updates and patches before publishing to the patch train



Database Migration & Replication

- Integrated Dataguard based Data migration
- Future : Multi-Cluster support with database replication.



Nutanix Era Provisioning Service

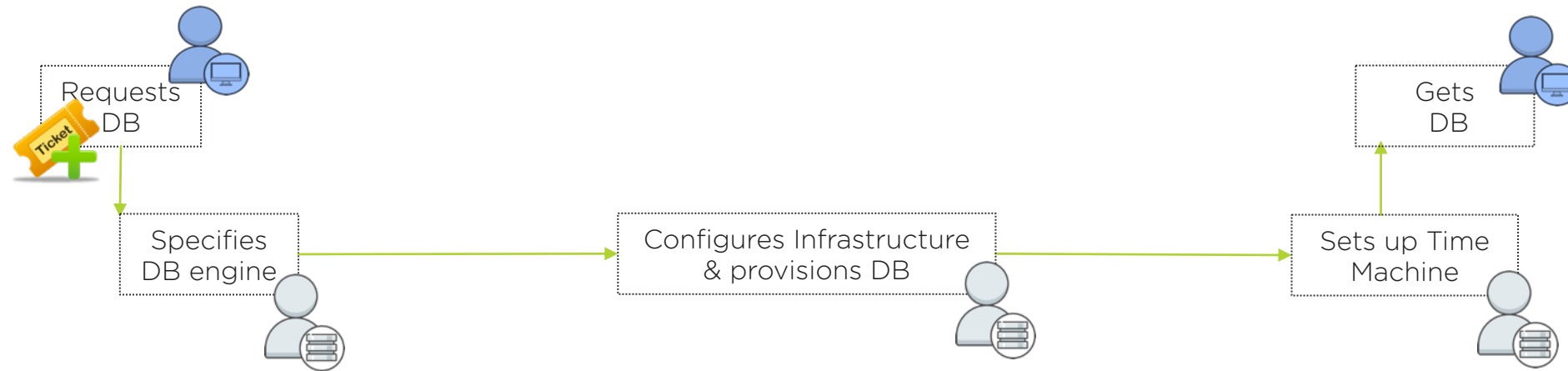
DB Engines

DB Catalog

DB Recovery SLAs



Nutanix Era Provisioning

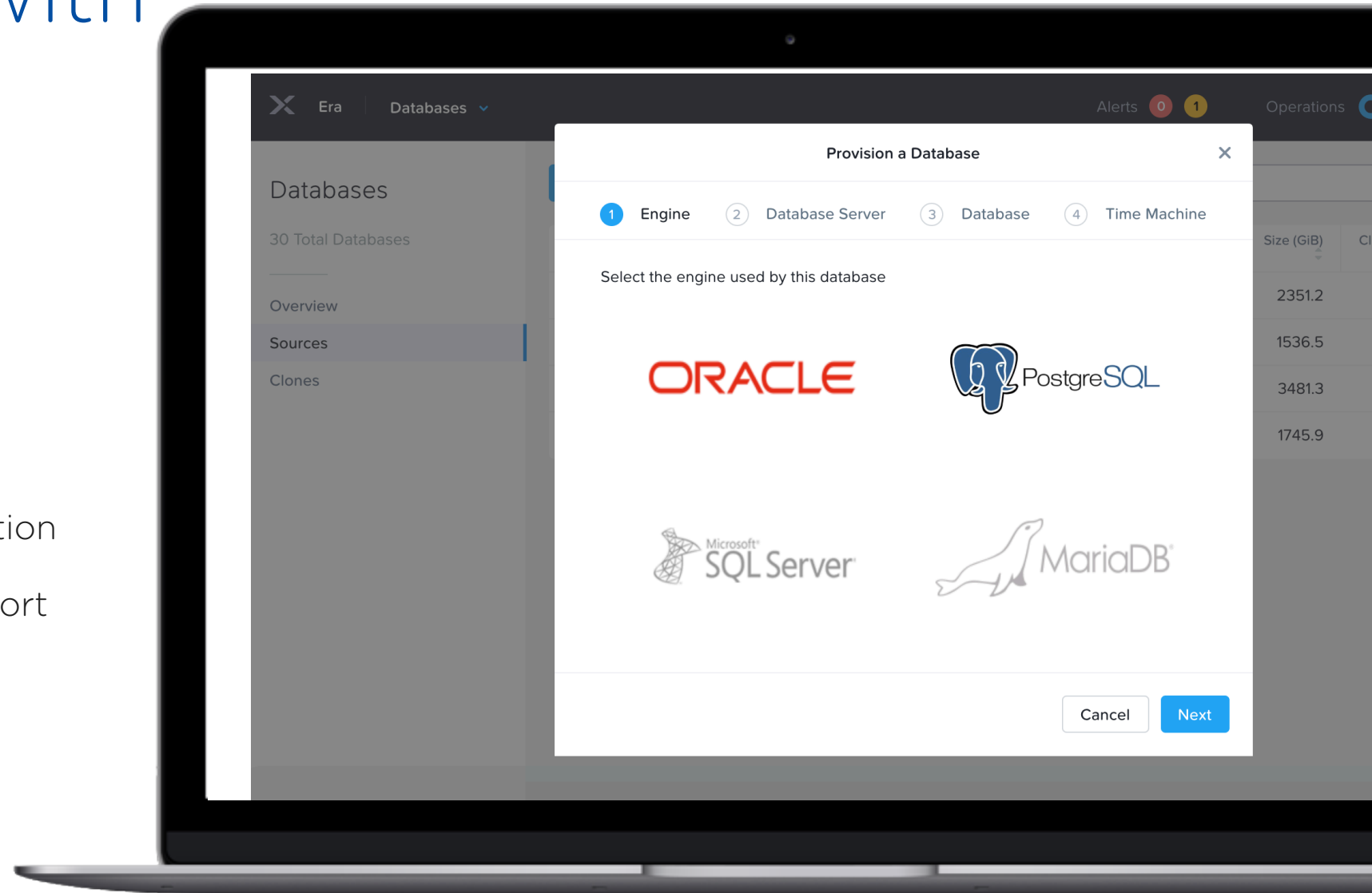


- Takes minutes
- One person
- Eliminates friction & complex process
- Increases business agility
- Increases innovation rate
- Reduces time to market



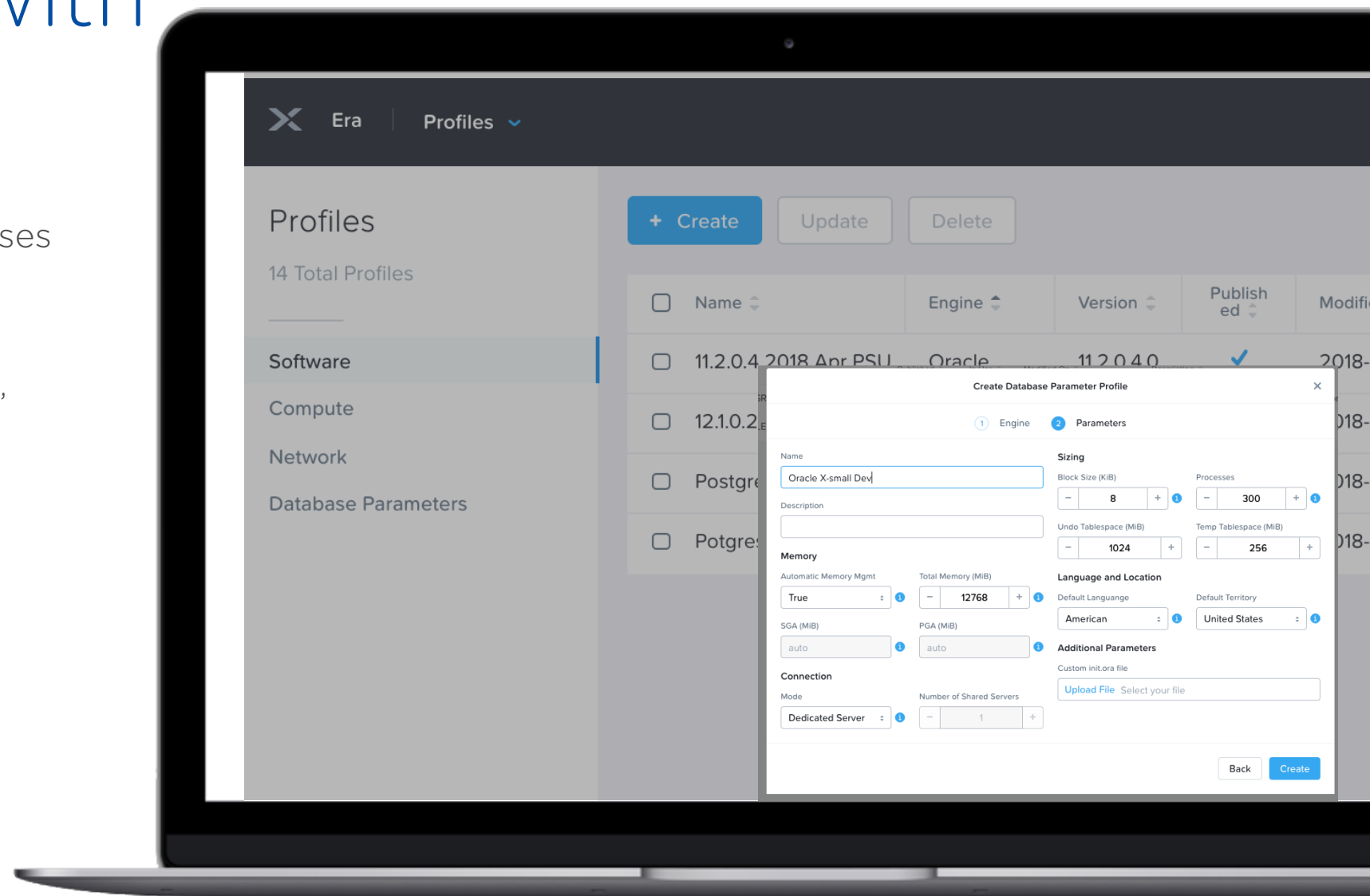
Provisioning with DB Engines

- Common APIs for multiple database engines
- Custom software images tailor-made to enterprise needs (PSUs and one-off patches)
- Pre/post create DB scripts insertion
- Complex HA environments support (e.g. Oracle RAC)



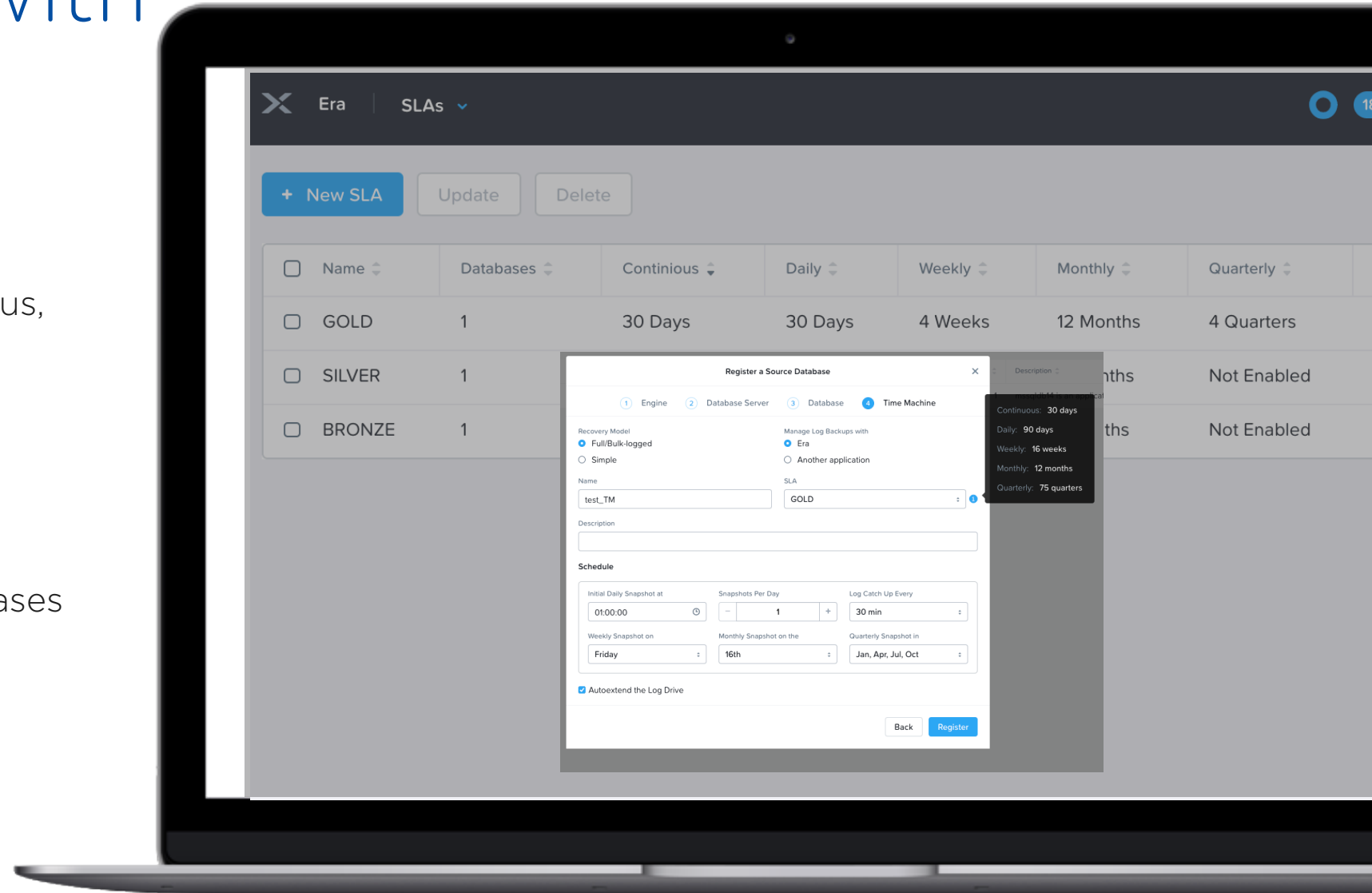
Provisioning with DB Catalog

- Standardized catalog for databases
- Customizable database profiles
- Customizable compute, network, and database parameters



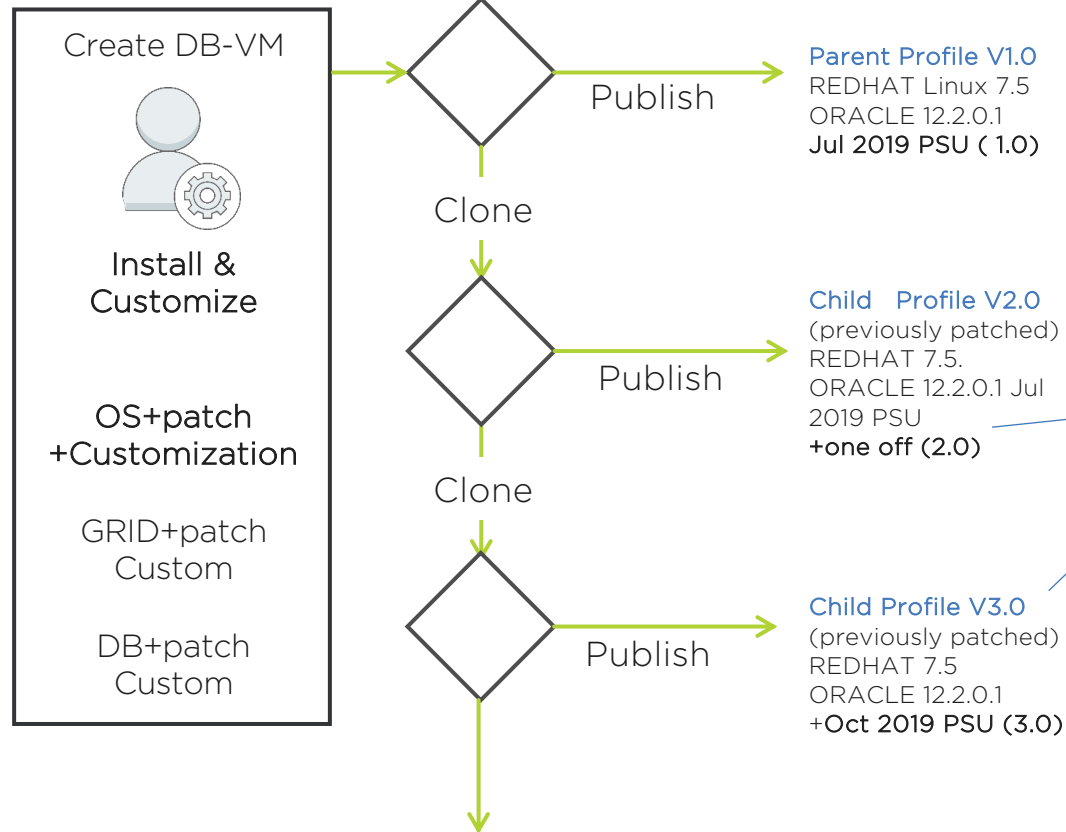
Provisioning with DB Recovery SLAs

- Sophisticated SLAs for continuous, daily, and monthly RPO
- Predefined/Customizable SLAs based on business requirements
- Database Recovery SLAs' standardization across all databases

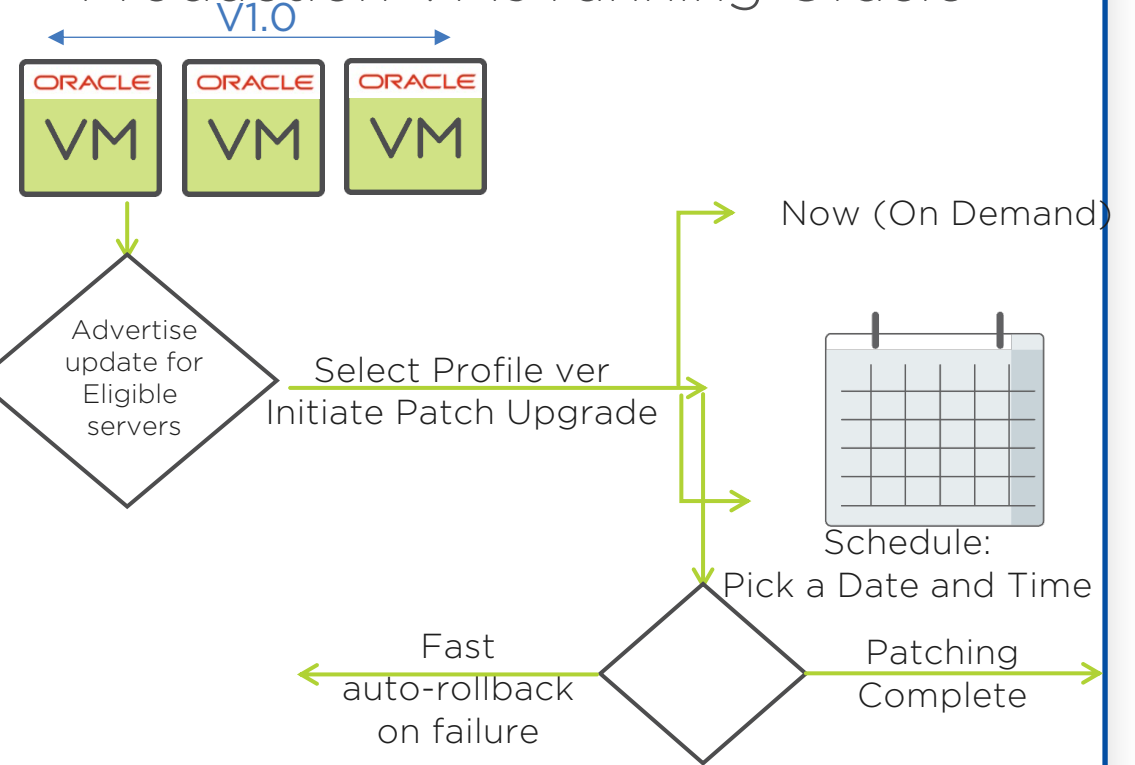


Oracle Patching Workflow

Building Patch Profile



- Applying Published Patch Profile to Production VMs running Oracle



Nutanix Era Copy Data Service

Time Machine

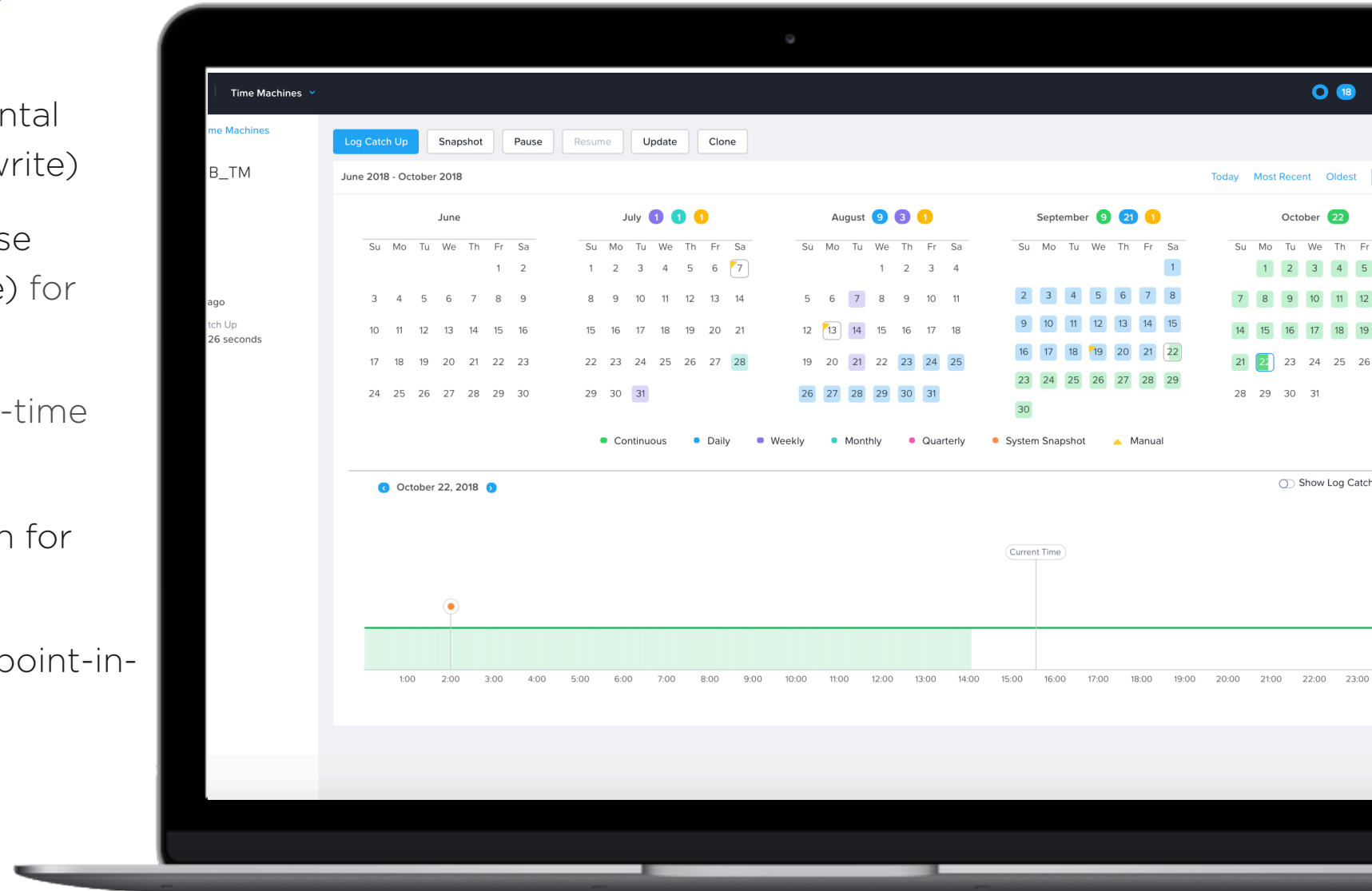
One-click Database Cloning & Refresh

One-click Database Backup & Restore



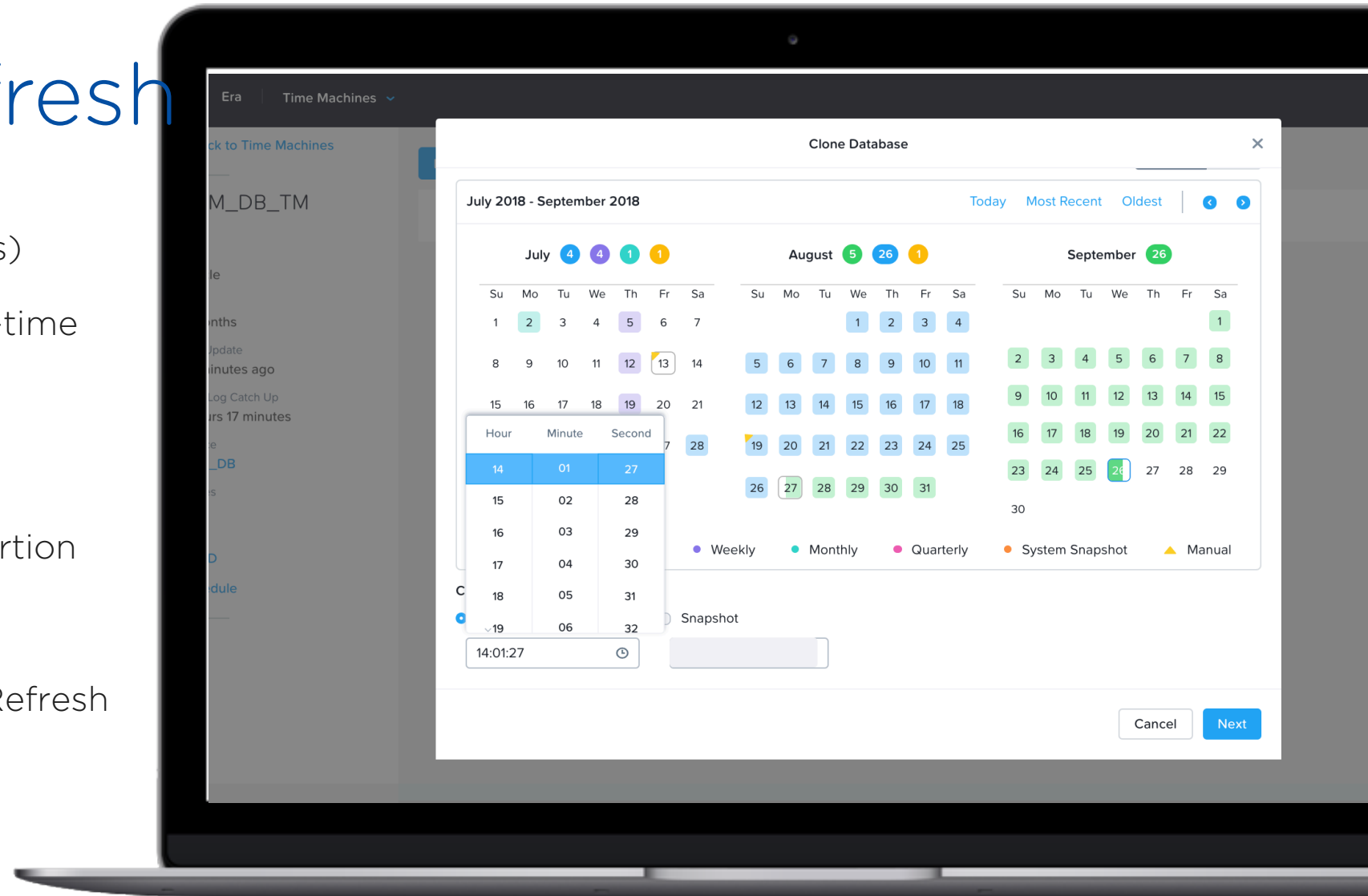
Time Machine

- Time and Space efficient incremental Nutanix snapshots (re-direct on write)
- Database quiescing using database native APIs (e.g. RMAN for Oracle) for App-consistent snapshot
- Collect database logs for point-in-time recovery
- Automatic database log collection for point-in-time recovery (RPO)
- Zero-byte database clones to any point-in-time
- Support for brownfield/greenfield databases



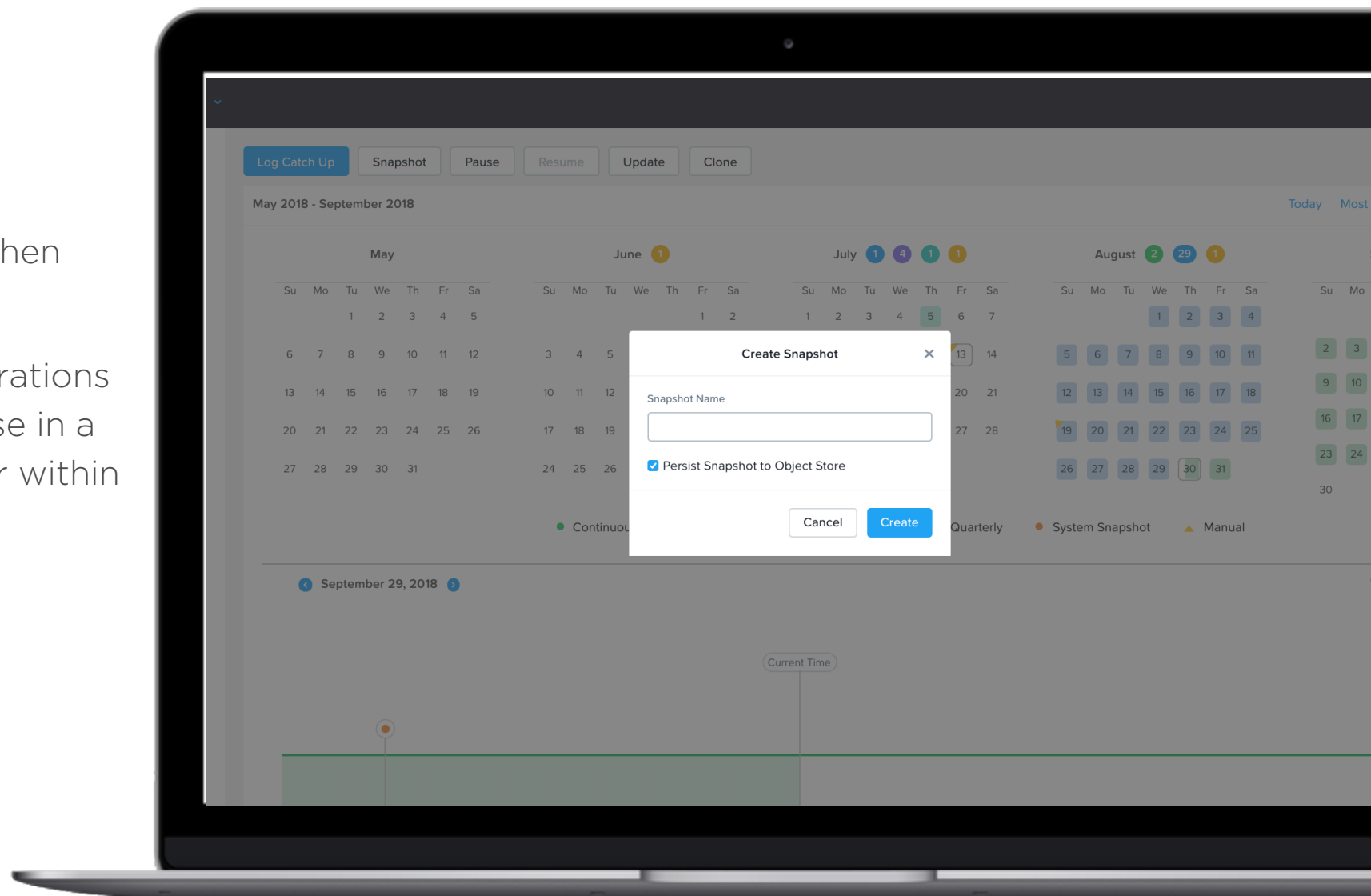
One-Click DB Cloning & Refresh

- Fast clone creation (few minutes)
- Database clones to any point-in-time
- Production-like QOS for clones
- Database server only clones
- Pre/post DB masking script insertion
- One-click refresh in few minutes
- Consumer grade DB Cloning & Refresh experience



One-Click DB Backup

- One-click database snapshot when desired
- Consumer-grade database operations for backing up any size database in a full database consistent manner within a matter of minutes.



Integration & Visibility

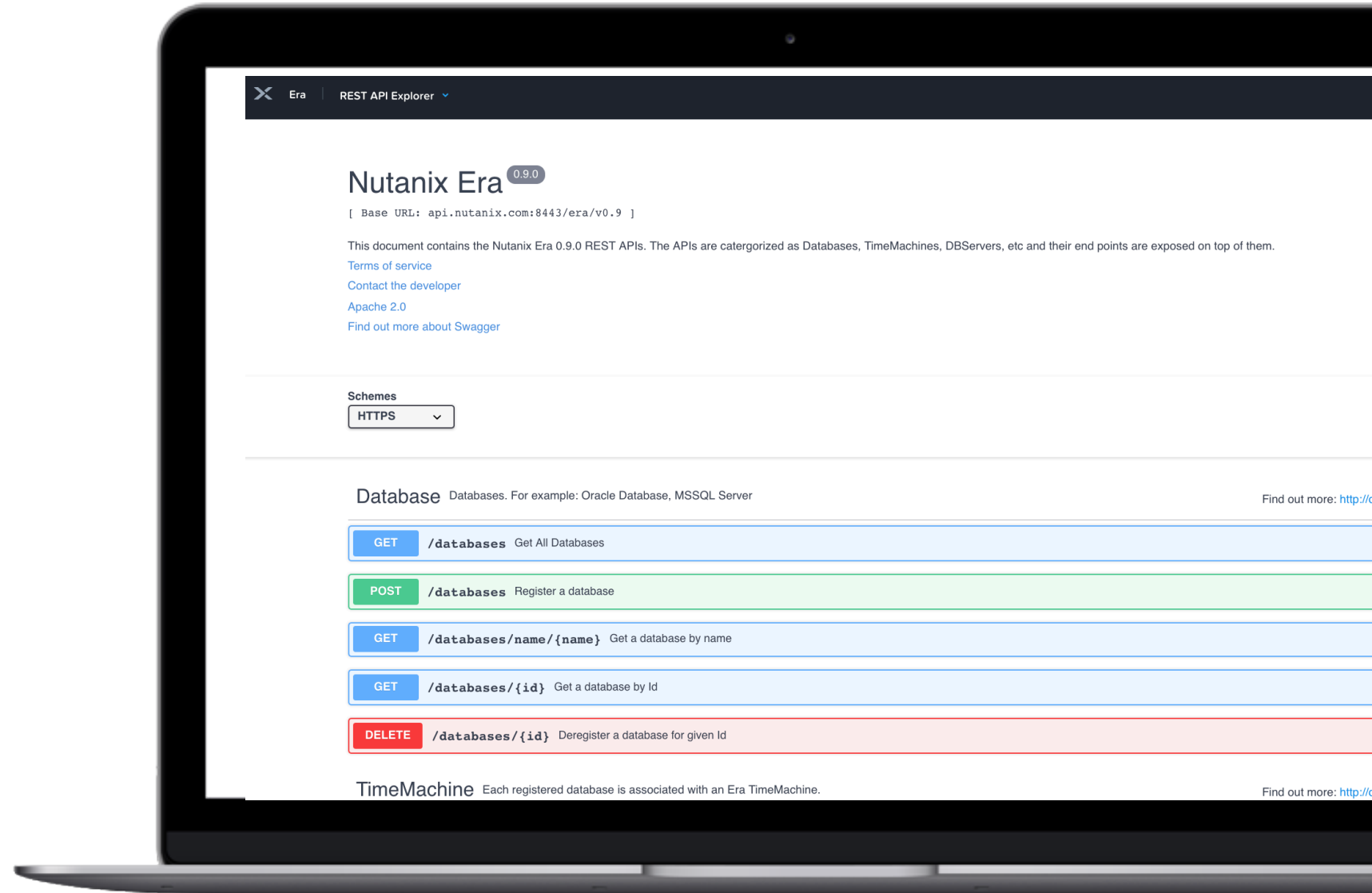
APIs

Operations



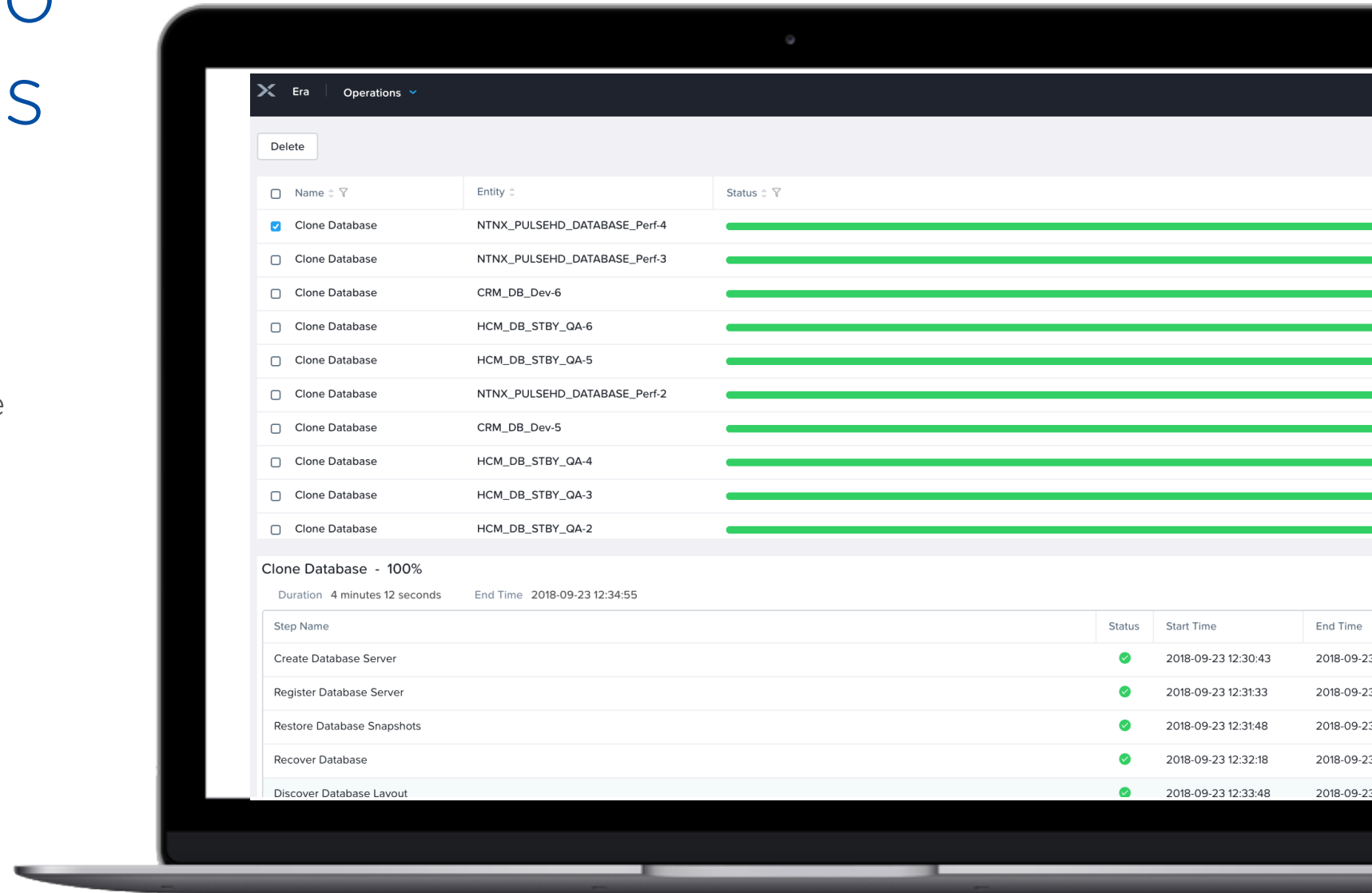
Nutanix Era REST APIs

- API first architecture
- Ability to integrate with the desired Self-service tools
- Calm blueprint creation for deploying databases through Era APIs



Full visibility to DB Operations

- Full visibility to all activities for provisioning, cloning, and database refresh.
- Full dashboard giving complete visibility to all Era managed databases



Self service

- Era can be integrated with ServiceNow

