

[Blog](#)

Database Management Made Simple with Nutanix Database Service

By [Maryam Sanglaji & Steven Poitras & Steve Kaplan](#), November 01, 2022

[Editor's Note: This blog post has been updated to reflect the new product name, [Nutanix Database Service \(NDB\)](#). To learn about the latest NDB features and benefits to both DBAs and developers, please visit www.nutanix.com/ndb.]

Nutanix first made datacenter infrastructure invisible with enterprise cloud built on hyperconverged infrastructure. The company next transformed and simplified virtualization from stand-alone product to feature. Today, with Nutanix Database Service (NDB), Nutanix announces a revolution in provisioning and managing databases. Nutanix Era is expected to be available in the second half of 2018.



The Challenge with Legacy Database Environments

IDC's 2016 report on Copy Data Management (CDM) showed that 77% of the organizations surveyed have more than 200 database instances while 82% have more than 10 copies of each instance. The typical database administrator (DBA) must provision, manage, refresh, restore and perform other database operations for 2,000 database instances. The complexity and time-consuming nature of managing all these instances is further exacerbated when the databases run on a wide variety of legacy software and hardware technologies.

Difficulties with Database Provisioning

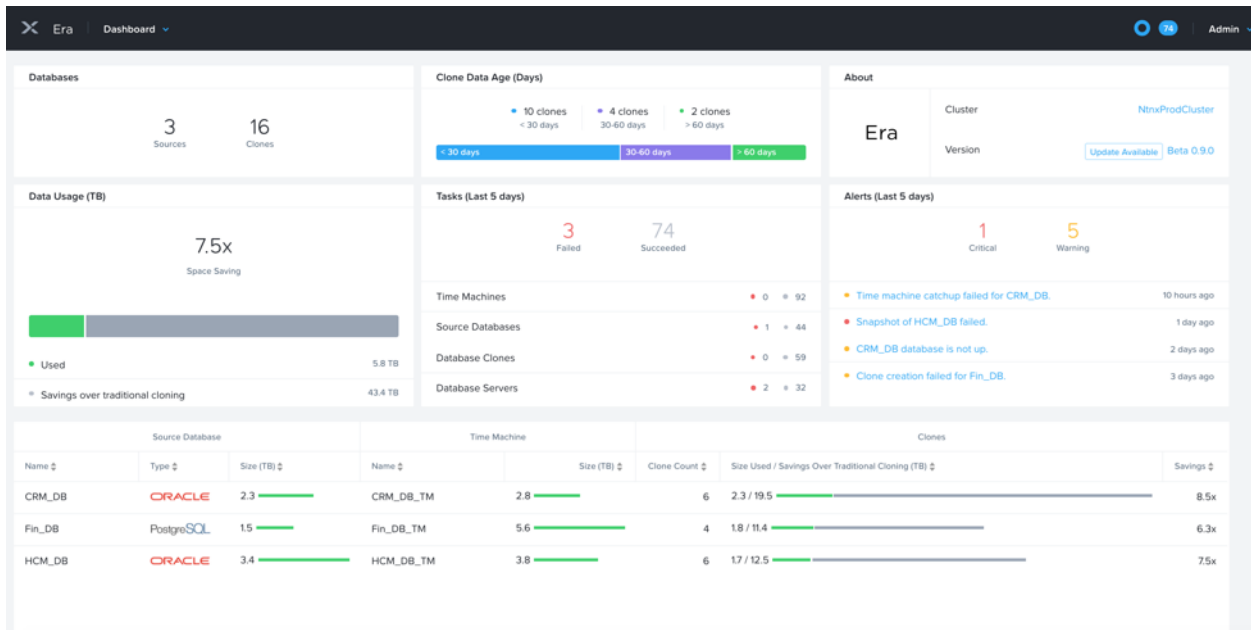
Provisioning each database requires considerations such as configuring compute as a single VM or multiple VMs in a cluster. Storage provisioning often requires multiple disk groups to handle different kinds of database data such as data files, software, online logs, logfiles, local backups, etc. Once the DBA identifies the compute and storage and has a ready environment, the database server setup process starts with installing the database software. A clustered system requires installation, configuration and testing of additional components. The DBA must also protect the database by configuring backup policies requiring integration with different backup software and hardware technologies.

Cloning and Data Refresh Considerations

Cloning and data refresh processes are complex as well. Cloning requires backup set identification along with any log files that are needed for clone creation. The DBA must first locate the backups (tapes or secondary sources) and then perform a complex recovery process that includes setting up the database server, connecting to the database, restoring database backups, and finally replaying the database logs to a specific time. Then the DBA must regularly refresh all these database copies and clones with the source data to be useful. Now imagine scaling that effort to hundreds of databases to support different groups (test/dev, BI, QA, etc.) within the organization.

What is Nutanix Database Service

NDB is a [Database-as-a-Service](#) that automates and simplifies [database management](#), bringing one-click simplicity and invisible operations to database provisioning and lifecycle management (LCM). Starting with Copy Data Management (CDM) as its first offering, Nutanix Database Service enables database admins to provision, clone, refresh and restore their databases to any point in time. Through a rich, but simple to use, UI and CLI, they can restore to the latest application-consistent transaction.

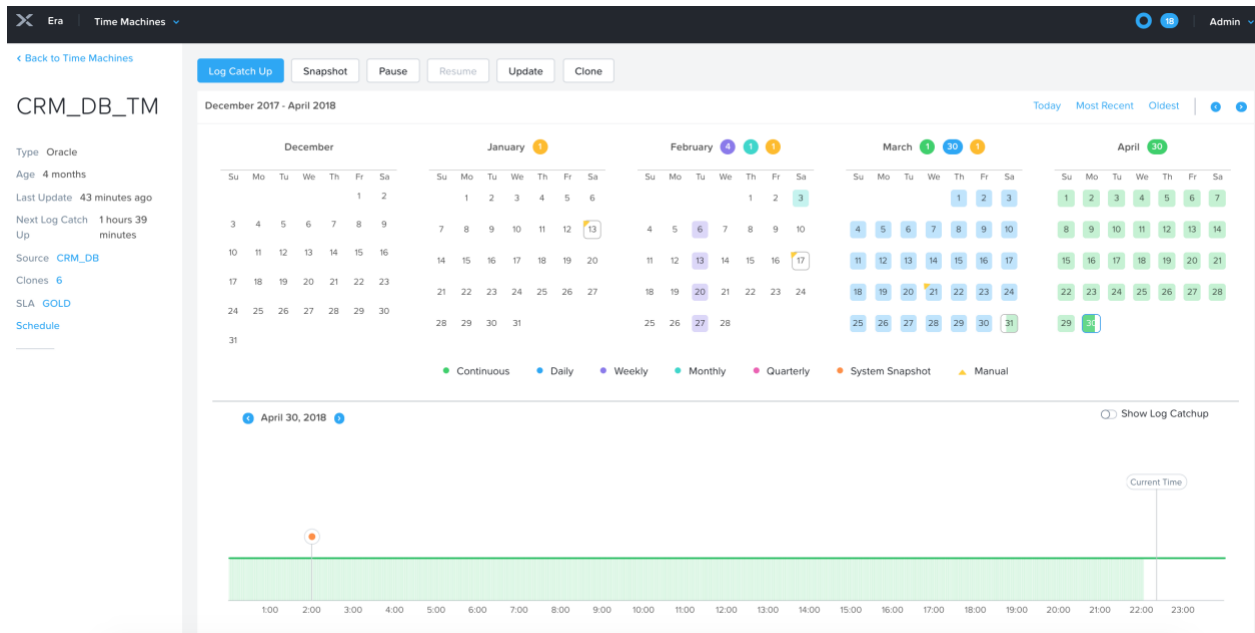


One-Click time machine

Leveraging Nutanix space and time-efficient snapshots and application-centric APIs, Nutanix Era lowers CapEx costs for enterprise customers who are managing many copies of databases.

One-Click database clone/refresh

NDB's one-click database refresh eliminates the time consuming, complex process of database clone/refresh. Allows admins to create database clones/refresh to any point in time in just a few minutes, saving immensely on enterprise OpEx.



Name	Entity	Status	Start Time
<input checked="" type="checkbox"/> Clone Database	Clone_of_CRM_DB_2018_Aug_28	29%	2018-08-28 16:22:12
<input type="checkbox"/> Clone Database	NTNX_PULSEHD_DATABASE_Perf-4	Done	2018-08-27 12:30:43
<input type="checkbox"/> Clone Database	NTNX_PULSEHD_DATABASE_Perf-3	Done	2018-08-26 22:10:12
<input type="checkbox"/> Clone Database	CRM_DB_Dev-6	Done	2018-08-26 21:22:57
<input type="checkbox"/> Clone Database	HCM_DB_STBY_QA-6	Done	2018-08-26 21:12:50
<input type="checkbox"/> Clone Database	HCM_DB_STBY_QA-5	Done	2018-08-26 19:34:11
<input type="checkbox"/> Clone Database	NTNX_PULSEHD_DATABASE_Perf-2	Done	2018-08-25 15:45:45
<input type="checkbox"/> Clone Database	CRM_DB_Dev-5	Done	2018-08-23 17:21:23
<input type="checkbox"/> Clone Database	HCM_DB_STBY_QA-4	Done	2018-08-23 09:33:44
<input type="checkbox"/> Clone Database	HCM_DB_STBY_QA-3	Done	2018-08-22 02:25:37

Clone Database - 29%

Duration: 55 seconds

Step Name	Status	Start Time	End Time	Duration
Restore Database Snapshots	●	2018-08-28 16:22:12	2018-08-28 16:22:42	30 seconds
Recover Database	○	2018-08-28 16:22:42		25 seconds
Discover Database Layout	○			
Register Clone Database	○			
First System Snapshot	○			

Automatic Database Provisioning: Your DBAs (and CFO) will Love You

In summary, Nutanix Database Service automates database provisioning and lifecycle management – slashing both DBA time and the cost of managing databases with traditional technologies. NDB initially supports Oracle and PostgreSQL databases*, but will expand over time to include an increasing number of popular databases, starting with Microsoft SQL Server and MySQL. With NDB, your DBAs will be delighted by getting back their weekends, and your CIOs contented with lowered TCO of their database estate.

* As of November 2022, NDB supports the five most popular databases, according to DB Engines rankings - Microsoft SQL Server, Oracle Database, PostgreSQL, MySQL, and MongoDB. For more information about NDB's full slate of database management features, please visit www.nutanix.com/ndb.

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