Database Modernization Fit for the Digital Era

Bringing Speed, Simplicity and Cloud Elements to Databases

An IDC, Nutanix & Wipro webinar

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Your Speakers today

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Discussion Points for today

Rise of a Digital Economy: What are the demands and expectations from databases in the era of digital innovation.

Journey to successful database transformation: Imperatives, Steps, and Considerations

What do best practices in database operations look like? And what benefits modern, managed database services bring to the table

Recommendations and Future Outlook: Laying the right foundation to become data-driven and achieve agile delivery
Rise of a Digital Economy: Demands and expectations in the era of digital innovation

IDC estimates that by 2025, 60% of enterprises in Europe will be prolific software producers, with code deployed daily, over 90% of new apps cloud native, 75% of code externally sourced, and 1.2 times more developers than 2019.

Modern, cloud-based database services are at the heart of this world class technical foundation to meet speed and agility needs.
Business Imperatives and Traditional Database Environment Challenges

**IMPERATIVES**

- 67% European organizations plan to adjust 2020 technology roadmaps
- 1 in 2 European IT Execs prioritize software dev capabilities to drive product / experience innovation

**CHALLENGES**

Which of these workloads will increase their storage capacity the most, in the next 12 months?

1. Structured Database
2. Real-time Big Data Analytics
3. Business Intelligence
Organizations struggle to navigate the application complexities

Legacy 3-tier infrastructure and database complexity is hurting IT teams because they are struggling to maintain SLAs and contain the spiralling costs of data management.
Future of Digital Infrastructure: A Strategy to Overcome Complexities

Digital Infrastructure Ecosystem

Ubiquitous Deployment

Autonomous Operations

Cloud-Centric Technology

Consistent Resilience

Continual Enhancement

Resource Optimization
Cloud Tops List of Planned Changes to Long-Term IT strategy

How do you think that your organization’s long-term IT strategy will be affected by the COVID-19 crisis? [Choose all that apply]

- Does expect major changes: 6%
- Does NOT expect any long-term changes

- More aggressive cloud move
- More IT spending towards remote working (inc. Mobile devices and apps)
- More investment in risk management (DR, security)
- More investment in automation and real time insights
- More outsourcing

Source: IDC European IT Buyer Sentiment Survey — Wave 3, 20-27 April 2020 WEIGHTED – IT respondents only (N = 218) – Grouped and averaged answers
Are app migrations successful?

23% Completely Successful
39% Somewhat Successful
12% Failure

Source: IDC’s 2020 annual multicloud and next-generation infrastructure survey N=1187
Why cloud migrations fail

- 25% Security Issues
- 22% Performance Issues
- 21% Skills Shortage
- 20% Trust Issues
- 19% Reliability Issues

Source: IDC’s 2020 annual multicloud and next-generation infrastructure survey N=613
Hybrid Multicloud is a Reality

Most enterprises are running hybrid multicloud environments

21% Public Cloud IaaS

19% Edge Environments

17% Secondary DCs

33% Core datacenters

18% Public Cloud PaaS

Infrastructure Spending Split

Attitude to cloud use

40% We take a balanced approach between on-premises/colocation and public cloud

32% We prefer to run things on-premises/colocation, and use public cloud where we have to

13% We prefer public cloud, and use on-prem/colo where we have to

IDC Multicloud Enterprise End User Survey, May 2020
Cloud Migration Strategies – Multiple Routes to Cloud

- **Monolithic Enterprise Application**
- **Retain / Retire** 31%
- **Replace**
  - Re-Architect 21%
  - Re-Factor: component-level upgrade 18%
  - Re-Host: Lift and shift 4%
  - SaaS 25%
  - PaaS 21%
  - IaaS 18%
  - Hosting & Co-Location 4%

Nutanix – Steps to modernize Databases

Cloud Experience @customer terms
Utility consumption, billing, elastic-scale out, custom defined images, SLA’s and policies

One Click Simplicity
Consumer grade experience to provision, clone databases in minutes

API-first architecture
DevOps/DataOps Integrations and self service
Platform considerations when modernizing Databases

Managed Database Services

- Legacy Modernization
- Autonomous Operations Service Theatre
- Cloud like Managed services Commercial model

- Migration Toolkit & Templates
- Upgrade & Cross Platform migration
- Application centric migration approach
- AIOps led use cases
- Automated Change Management
- Integrated operation
Blueprint for Seamless Hybrid Cloud

**Public cloud**

**Experiment**
Explore providers and migrate initial workloads into public cloud, developing success metrics.

**Evaluate**
Refine and measure metrics to track migration and app operations in public cloud.

**Automate**
Standardize migration processes and workload evaluations and automate operations.

**Expand**
Apply the standard processes and automation to a broad set of workloads as needed.

**Optimize**
Apply learnings from operational expertise and review/refine placement decisions and processes as needed over time.

**Private cloud**

**Experiment**
Identify gaps in IT infrastructure cloud capabilities.
Classify enterprise apps for cloud suitability.
Build test apps to gain familiarity with new IT paradigms.

**Evaluate**
Examine potential of full on-premises cloud stacks for your app catalog.
Ensure that on-premises cloud stack is compatible or integrates with the public cloud services you use.
Identify skills needed and training plan/recruitment.

**Automate**
Modernize IT infrastructure that can be deployed as code.
Identify low-level systems operations that are candidates for automation.
Build automation and monitoring templates for infrastructure and apps.

Hybrid cloud maturity
Cloud Maturity Attributes

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<th>Attribute</th>
<th>Description</th>
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<tr>
<td>Intelligent security and/or digital trust</td>
<td>Programmable infrastructure — software-defined storage (SDS), software-defined networking (SDN), serverless, containers, Kubernetes, etc.</td>
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<td>Formal risk management/governance processes</td>
<td>Access to integrated real-time (less than one hour old) data</td>
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<tr>
<td>Intelligent monitoring, optimization, and remediation</td>
<td>DevOps and/or modern agile application development approaches</td>
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<td>Automation &amp; Orchestration</td>
<td>Adoption of multicloud services (ability to deploy and manage IT services across multiple cloud locations or providers)</td>
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<td>API-centric development/API gateways</td>
<td>Artificial intelligence/machine learning (AI/ML) in actual business use cases (business processes/monetization/decision support)</td>
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Source: IDC’s 2020 annual multicloud and next-generation infrastructure survey

N=1187
2020 IT Modernization Strategies: Cloud-Centric, Automated, Data-Driven

By 2022, 60% of organizations will have invested in automation, orchestration, and development lifecycle management of cloud-native applications and platforms.

Source: IDC’s 2020 annual multicloud and next-generation infrastructure survey, N=1187
Nutanix Era – DBaaS for the Enterprise Hybrid Cloud

Hybrid DB Platform Services

- API
- GUI
- CLI

Databases

- Provisioning
- Copy Data Management
- Data Protection
- DR
- Patch Management
- Monitoring

Nutanix Enterprise Cloud Platform

- Cluster A
- Cluster (n)
- On Public cloud

Nutanix Enterprise Cloud Platform
Wipro – on managed database services

DB Cloud services – Hybrid

Self service
API Connect
GUI

Efficient Run

Automation Studio
Proactive, Preventive & Predictive Operations

Enable Change

Design, Build, Transform
Change I Project I Engineering I Technology Adoption I Transformation Execution

Service Management
Quality Assurance I Situation Management I Continuous improvements I Simplification

Managed DB services
Customer controlled services
Best practices in database operations: Using modern, managed database services on Road to Recovery

Which one of the following statements best describes where your organization currently is in the context of the Covid Crisis?

- **Crisis:** Business Continuity
- **Slow Down:** Cost Optimization
- **Recession:** Business Resiliency
- **Return to Growth:** Targeted Investments
- **The Next Normal:** Future Enterprise

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<tr>
<td>Europe</td>
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<td>37%</td>
<td>24%</td>
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Future Outlook: Laying the right foundation to become data-driven and achieve agile delivery

For 37% of organizations, data capitalization is a top priority to execute on digital transformation initiatives.

What percent of your 2020 technology projects will be the following types of projects?

Europe

- Technology projects that can be more easily executed: 21.07%
- Technology projects that will help create operational efficiency: 22.1%
- Technology projects that will help reduce costs: 22.61%
- Technology projects that will generate a return to the business in 2020/2021: 27.3%
Conclusion

1. Deliver **business value** such as **cost reduction**, **business resiliency** as well as **innovation** via **hybrid cloud strategy**.

2. Align your **database modernization plan** with the **hybrid cloud** strategy for high **impact**

3. Leverage cloud-like **technologies** for **Recovery, Simplicity, and Speed**!
Thank you