Tech Trends: Major trends in cloud computing to watch

David Linthicum – April 2022
The major movements are clear

- Industry clouds
- Obtaining sustainability
- Cloud-scale solutions
- Work from anywhere enablement

2022 → 2023-2025
Industry clouds
The research is just now evolving...
The emergence of industry clouds

As much as 64% of the US$1 trillion cloud market could benefit from industry clouds — a $640 billion potential market.

Five industries with high interest in adopting industry cloud solutions for end-to-end digital transformation priorities
Percentage of respondents by sector that expressed interest in industry cloud

Retail: in processes such as risk management and procurement
- 95%

Consumer products: to support supply chain business processes
- 92%

Discrete manufacturing: to improve digital supply networks
- 88%

Banking and insurance: for data management and insights
- 87%

Public sector: for tax and revenue operations
- 86%

Analysis based on data from: Nadia Ballard et al., Industry CloudPath 2021: Executive Summary Report, IDC, accessed October 26, 2021. Of the respondents who said that they’re already using applications in the cloud, 35% are using industry-specific cloud applications, 35% are using horizontal apps designed for multiple industries, and 29% have customized applications to fit their industry. Our analysis uses industry-specific and customized applications as indicators for the demand for industry clouds.
Industry clouds recalibrate the strategy and engineering equation

Rebalancing the buy vs. build equation to find your strategic buy and build

Business strategy and internal build focus:

- Set competitive strategy for digital
- Identify opportunities to leverage industry clouds
- Customize and layer in differentiated capabilities to derive competitive advantage
- Build with integrated business and tech teams

External partner focus:

- Analyzing industry scenarios and opportunities
- Creating whole-product, end-to-end, pre-integrated solutions
- Continuously evolving industry clouds and capabilities
- Increasing interoperability across technology platforms

Key benefits from this approach

- Better align top digital use cases to the organization’s enterprise and digital strategies
- Accelerate development for these top use cases aligned to the ability to win to improve revenues, reduce costs, and accelerate time-to-market for new products or services
- Hypercharge an organization’s capacity to change with best of breed tech and talent
- Free up internal resources to focus on areas of competitive differentiation
Obtaining sustainability
Major cloud providers are leading here, but enterprises need to be involved.

Source: https://aws.amazon.com/blogs/architecture/optimizing-your-aws-infrastructure-for-sustainability-part-i-compute/
Cloud-scale solutions
Architecture at the center of cloud-scale

Billions or actions per second
Emerging “cloud scale” logical patterns
Work from anywhere enablement
How do we support a dynamic and distributed workforce: We Need to Recognize that Becoming a High-Performance IT Organization will be a Multi-year Phased Journey for Cloud-Using Enterprise IT in Order to Run Smarter, Grow Stronger, and Transform Faster

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Immediate activities

- Propose and validate new IT Operating Model
- Finalize new IT operating model design and start the transformation focusing on the shared services
- Understand and re-design the IT Governance Model
- Design the new service delivery model and select partner(s)
- Develop a Business Aligned IT Innovation Process
- Define a cloud strategy

Near Term State – One IT S2, S5, D1, D2, D3, C2

- Scale adoption of the new IT operating model and build out the BSDT’s
- Enhance delivery based on metrics & reporting
- Implement Continuous Improvement

Build the Foundation

Outcomes

- Migration towards a fundamentally different model for planning, prioritizing, and funding
- Structured investment governance with enforced portfolio processes and mindset to increase business outcomes
- Consolidation of NA & IO into one IT organization

Build out the new IT Operating Model

- Adoption of key delivery practices (i.e. minimum viable product)
- Accelerated automation of IT delivery
- Decreased infrastructure capacity costs (based on cloud adoption)
- Improved cost transparency

Future State – High performing IT organization

- Product Organization (>80% Adoption)
- Fast & Frequent Releases
- Outcome Driven Delivery
- Clear & Accurate Visibility into Delivery
- Continuous Improvement Across the Enterprise

Business Alignment / Delivery Effectiveness

- Increased return from IT investments
- Target operating model design completed and embedded within the overall culture
- Increased delivery effectiveness

Today

0 – 1 year

- Finalize new IT operating model design and start the transformation focusing on the shared services
- Understand and re-design the IT Governance Model
- Design the new service delivery model and select partner(s)
- Develop a Business Aligned IT Innovation Process
- Define a cloud strategy

1 – 2 years

- Scale adoption of the new IT operating model and build out the BSDT’s
- Enhance delivery based on metrics & reporting
- Implement Continuous Improvement

3 – 4 years

- Continue building out the new operating model
- Enhance Agile Workplace / Culture as needed

- Continuous Improvement Across the Enterprise

- Increased return from IT investments
- Target operating model design completed and embedded within the overall culture
- Increased delivery effectiveness
Several Key Factors with Business Implications can Help to Lead to a more Successful Transformation to Supporting Remote Work

### Success Factors

- **Partner with the business for success**  
  Ensuring business engagement is key, requiring dedicated resources for future design activities can improve involvement and accelerate design making

- **Focus on business value**  
  Financial transparency – both on the cost and benefits side of the equation is key to demonstrate business value of complex transformation programs

- **Consider impact on people**  
  Prepare internal talent and external stakeholders to manage the change inherent in a new target model

- **Recognize opportunities to transform**  
  Enterprise wide programs are an opportunity to drive consistency, transform organizations, spur innovation, and generate true business value

- **Communicate early and frequently**  
  Reduce “noise” within the organization by planning early and effectively articulating the case for change

### Implications for <Client Name>

- Collaborative approach that builds accountability and consensus across all stakeholders
- Business involvement to drive decision making, funding levels and ensure joint accountability for success
- Business commitment to provide the resources required to drive a product focused operating model
- Ability to articulate the case for change, value being captured, and the cost to successfully execute the transformation journey
- Program decisions anchored towards enabling talent to operate effectively in the future state model, providing transparent view to future roles, and enhancing business alignment
- Clear identification of capabilities required to operate in an ever-changing environment
- Ability to leverage technology advances to leap-frog traditional capability maturity stages
- Comprehensive change and communications strategy and detailed plans to minimize program execution risk
- Constant and open communication to help neutralize any latent resistance to change
- Manage strategic and operational disruptions that will occur during the transformation
Remote Work Cloud Strategy

The Value of the Cloud - Organizations are moving to Cloud computing to enable IT agility and greater cost controls through its on-demand model. The reasons to use Cloud are characterized by several strategic, economic, and architectural benefits:

Cloud computing offers increased agility through faster time to market, lower upfront IT capital expenditure and the ability to easily scale up / down and reallocate resources.

Benefits Overview

- **Strategic**
  - Managed Operations
    - Depending on services purchased from the vendor, externally hosted Cloud services have the potential to shift the management burden
    - Hardware deployment and management potentially shifted to third-party
  - Third-Party Ownership
    - Workload portability due to virtualization
    - Cost optimizations through use of shared services
  - Virtualized/Shared Services
    - Reduction in required time, energy and cost to manage and administer infrastructure through ability to automate common tasks
  - Management Automation
    - Utility-based pricing based on usage
    - Cost for hosting shifted from capex to opex
  - Consumption-Based Pricing
    - Ability to scale up and down based demand
    - Automated scaling ability
  - Elastic Capacity
    - Quick access to infrastructure and applications
    - Provision without significant IT involvement for certain environments

- **Economic**
  - Consumption Based Pricing
    - Quick access to infrastructure and applications
    - Provision without significant IT involvement for certain environments
  - Self-Service Provisioning
  - Elastic Resource Capacity
  - Virtualized / Shared Resources
  - Management Automation
  - Consumption Based Pricing
  - Elastic Capacity
  - Self-Service Provisioning

- **Architectural**
  - Consumption Based Pricing
  - Elastic Resource Capacity
  - Virtualized / Shared Resources
  - Management Automation
  - Self-Service Provisioning