Data Exchange in the Era of Digital Transformation

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In This InfoBrief

IDC and IBM surveyed organizations in the U.S., UK, and Europe to determine the degree of data being exchanged by small to large organizations across all major industries. The survey sought to measure the various maturity levels of data exchange within organizations, as well as determine company strategies and plans for data exchange going forward.

Demographics of Survey Respondents by Country, Company Size, Industry and Role
Data is the lifeblood of digital transformation, flowing between internal processes and external ecosystems at the speed of business.

Data is being exchanged by small to large organizations around the world and across all major industries.

IDC’s Digital Transformation Platform

- 75% of organizations are exchanging data with external ecosystems across 2 to 5 business processes.
- Less than 10% of organizations have only one business process enabled with data exchange.

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019
Sample size: N=261
Data exchange “as-a-service” is being leveraged by more than 50% of organizations around the world.

More than 33% of organizations still use form-based exchanges!

Horizontal or cross-industry solutions are more prevalent than industry-specific.
Although most B2B and MFT software is still deployed in the datacenter, deployment on public cloud infrastructure-as-a-service isn’t far behind.
Data coming from hybrid and multi-cloud sources is the new normal for data exchange solutions. Data-exchange-as-a-service is prominent in hybrid and multi-cloud; EDI and MFT are prominent on-premises only.

**Percentage of Organizations Exchanging Hybrid vs. On-premises-only Data**

- **Hybrid**: 78%
- **On-premise only**: 22%

**Distribution of Volume**

- **DEaaS**: 10%
- **B2B software**: 15%
- **Web forms**: 10%
- **Custom code**: 10%
- **Manual forms**: 10%
- **MFT**: 15%
- **Legacy EDI**
- **Industry specific**

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019
Sample size: N=261
The majority of organizations are still at a lower level of data exchange maturity.

Data Exchange Maturity Level

- **Tactical**: 16%
- **Practical**: 44%
- **Coordinated**: 23%
- **Strategic**: 17%

Maturity measured on the basis of:
- Data exchange frequency
- Satisfaction with current SLAs
- Strategic planning
- Budget planning
- Data management efficiency

Most mature organizations are located in the U.S. within finance and retail/wholesale industries.

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019
Sample size: N=261
Data is being exchanged using all methods at all maturity levels. Form-based exchanges are utilized less at higher levels in favor of data exchange as-a-service and software solutions.

Most prevalent data exchange processes across all maturity levels:
- Payments
- Order Management
- Supply Chain Management

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019
Sample size: N=261
Monthly and weekly batch are dominant in lower levels of maturity. Balancing frequencies with a move towards near real-time characterizes higher levels of maturity.

Data Exchange Frequency by Maturity Level

- **Tactical**: Batch: Monthly (40%), Batch: Weekly (30%), Batch: More frequent than hourly (10%), Event-driven near real-time (20%)
- **Practical**: Batch: Monthly (50%), Batch: Weekly (20%), Batch: Daily (10%), Batch: Hourly (10%), Event-driven near real-time (10%)
- **Coordinated**: Batch: Monthly (30%), Batch: Weekly (20%), Batch: Daily (20%), Batch: Hourly (10%), Batch: More frequent than hourly (10%), Event-driven near real-time (10%)
- **Strategic**: Batch: Monthly (20%), Batch: Weekly (30%), Batch: Daily (20%), Batch: Hourly (10%), Batch: More frequent than hourly (10%), Event-driven near real-time (20%)

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019
Sample size: N=261
Higher levels of availability dominate strategic data exchange environments, where requirements are more often exceeded than simply met.

**Levels of Availability**

- Tactical: 0-10%
- Practical: 10-50%
- Coordinated: 50-90%
- Strategic: 90-100%

**Availability Meets Requirements?**

- Under 95%
- 96% to 99.5%
- 99.6% to 99.9%
- 99.9% to 99.99%
- Higher than 99.99%

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019
Sample size: N=261
Security and compliance are the requirements met the most, but many organizations are still unhappy with latency, elastic scalability, partner management/self-service, visibility, and governance.

Capability Gaps by Maturity Level

Reducing risk and analytics for decision support are the most important drivers to strategic organizations.

Operational intelligence and project management are the focus of tactical organizations.

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019
Sample size: N=261
Budget constraints are cited the most at lower levels of maturity, with reliability and complexity a problem for strategic organizations.

Top Implementation Challenges

- **Tactical**
  - Budget
  - Transaction volumes
  - Reliability of external networks

- **Practical**
  - Budget
  - Compliance constraints
  - Security constraints

- **Coordinated**
  - Security constraints
  - Budget
  - Transaction volumes

- **Strategic**
  - Reliability of external networks
  - Software reliability
  - Maintaining multiple gateways
Strategic organizations are successfully performing data exchange activities. Tactical organizations spend the least amount of time per week, but practical organizations are the least successful.

Data Exchange Activities:

- Onboarding
- Mapping
- Key Management
- Exception Management
- Partner Inquiries
- Internal Inquiries
- Partner Changes
- Internal Changes

Failure when successfully completing an activity is < 50% of the time

Source: IDC Data Exchange Survey Commissioned by IBM, February 2019 Sample size: N=261
Strategic organizations are focused on expanding the breadth and depth of data exchange. Tactical organizations are still making technology and outsourcing decisions.

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<th>Top 6 immediate plans for strategic organizations:</th>
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Summary takeaways

Hybrid application and data environments are the new normal – data exchange solutions need to be hybrid too.

As-a-service and B2B software are used the most among strategic organizations, whereas manual and managed file transfer solutions are more prevalent in tactical organizations.

Budget and reliability issues continue to be top-of-mind across most organizations.

Businesses operate in real-time, and need data exchanged near real-time: strategic organizations demonstrated higher frequencies while still supporting low-frequency batch.

Security and compliance are data exchange table stakes, high availability is feasible, but partner management and elasticity need improvement.
Call to Action

Assess your organization’s level of maturity:

- How do you plan and pay for data exchange solutions: at project or enterprise levels?
- How frequent are your data exchanges with partners?
- How often are your employees successful at completing data exchange tasks?
- What is the current level of availability?
- How reliable is your data exchange environment, and is the reliability of external networks an issue?

Improve your organization’s data exchange capabilities:

- Plan strategically at enterprise and cross LoB levels, accommodating budget and volume requirements.
- Identify and fill gaps in the functionality provided by your data exchange solutions.
- Once the data exchange technology environment stabilizes, focus on expanding depth and breadth.
- Consolidation of data exchange technologies and techniques can reduce complexity and increase efficiency.