R SYSTEMS

A MUCH NEEDED MODERN TOUCH TO

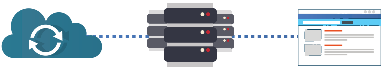
Enterprise Data Management

DATA A
DATA B
DATA C
DATA D
DATA E
DATA F
DATA G
DATA H

The Data Management Fuss

Enterprises are leveraging data to gain business insights and understand customer behavior before making million-dollar decisions.

But, what if managing the growing data goes awry?



Modernizing Data Management process can help refine it while making data access **faster and more accurate.**

Traditional vs Modern Data Management

TRADITIONAL	VS	MODERN
▼ Low Incapable of handling petabyte-scale applications and working with traditional open-source technologies	Growth	High ▲ Capable of handling hundreds of terabytes of data on external servers and cloud-based storage

▼ Low Poor data quality can lead to disastrous decision-making	**Adoption**	High ▲ Intelligent & Cognitive data quality aids decision-making
👎 Poor Incomprehensible file/document formats. Inaccessibility across data sources	**Accessibility**	Excellent ★ Data can be accessed and interpreted across data formats, devices and operating systems
▼ Low Needs to be constantly upgraded. Only vertical upgrade possible	**Scalability**	High ▲ Cloud can accommodate large volumes of data. Can scale out vertically as well as horizontally
👎 Poor Ill-equipped to mitigate critical security-related challenges	**Security**	Excellent ★ High-level data security combats cyberattacks and other risks

STEPS TO ACHIEVE MODERN & COMPREHENSIVE DATA MANAGEMENT IN YOUR ORGANIZATION

1. Aligning Business & Data Management
2. Data Governance Frameworks
3. Managing Data
4. Processing Data
5. Deriving Insights

STEP 1

ALIGNING BUSINESS AND DATA MANAGEMENT OBJECTIVES

Data management systems should meet existing needs and enable innovation to accommodate future needs, while delivering optimal ROI.

Answers to the following questions will help you align your business and data management goals:

- What is your organization trying to achieve?
- Which problems is your organization trying to solve?
- What is the value of data that your organization stored?
- What can you achieve using this data?

Modern Data Architecture

- Customer focused
- Adaptive
- Automated
- Agile
- Collabrative
- Governed
- Secure
- Robust

STEP 2

USING DATA GOVERNANCE FRAMEWORKS

Need for Data Governance

In the age of information explosion, data is growing across all areas of the enterprise.
Data governance empowers organizations to exercise data control & accountability, while protecting it from threats.

According to Industry Insights:

- **40%** growth in structured data every year
- **80%** growth in traditional content types every year
- **85%** growth will come from new types, with machine-generated data increasing 15 times by 2020
- **40** ZB growth in global data by 2020

Achieving Effective Data Governance

1. **Prioritize Scope for Business Improvement :** By setting a firm foundation
2. **Emphasize Availability of Data Assets :** To make the most of your data
3. **Fix Responsibilities and Set Rules :** For proper data handling
4. **Ensure Data Integrity :** Through efficient profiling, standardization, enrichment, and monitoring
5. **Establish Accountability Structure :** With technology
6. **Convert to Master Data-Based Culture :** Rather than transaction data-based one
7. **Emphasize Process Improvement :** To decipher performance and make changes accordingly

STEP 3

MANAGING DATA

Using legacy systems can mean an outdated data architecture that fails to address modern developments in data management.

Architectural Components That Enrich Data

Integration Hub

Provides knowledge regarded as true, leveraging the investments made in traditional MDM.

Analytical Hub

Connects the dots in the enriched master data with an expanded entity view.

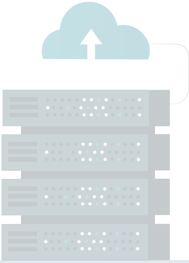
Digital Data Hub

Supports master data and analytics enrichment, real-time processing and query, and more.

Why Should Businesses Adopt the Cloud?

It is interesting to note that :

1. Data-driven decision-making
2. Improved business intelligence
3. Higher ROI
4. Easy access to upgraded versions
5. Improved accessibility and productivity
6. Streamlined collaboration
7. Adjustable capacity
8. Boosted uptime
9. Competitive advantage
10. Cost-effectiveness



83% of enterprise workloads will be in the cloud by 2020

94% of enterprises already use a cloud service

30% of all IT budgets are allocated to cloud computing

66% of enterprises already have a central cloud team or a cloud center of excellence

Barriers to Cloud Adoption

Security and Compliance

Lack of security and compliance with GDPR, HIPAA, PCI DSS, and more

Costs

Costs should be foreseeable and repeatable

Competency

Difficulty in hiring big data and cloud professionals

Compatibility with Legacy Systems

Reconfiguration during migration, coordination with data centers, networking, patching, securing and supporting servers

Control

Regulating the use of systems, applications, infrastructure, and data

Interoperability

Managing conditions and restrictions set by cloud providers

Transform Your Company for a Digital Future/Cloud Enablement

1

Assess your Cloud Needs

Are your business operations, current applications, and IT infrastructure ready for migration?

2

Understand the Complexity of the Cloud Environment

Do you understand public, private, hybrid, or community cloud environments?

3

Analyze Alternatives and Select a Cloud Partner

Does your cloud provider have expertise, experience, and technical know-how?

4

Plan Roadmap - Execute Monitor and Maintain

Have you planned for a high-performance cloud business environment?

STEP 4

PROCESSING DATA

Simply put, data processing entails collection, preparation, validation, quality control, and storage.

Challenges in Processing Big Data

Keeping up with Data Explosion:
Storing and analyzing data, which may be unstructured and not reside in a database

Generating Timely Insights:
Staying ahead in a competitive market by obtaining insights from big data & taking real-time action

Integrating Different Data Sources :
Unifying data for generating reports can be challenging

Validating Data :
Smaller pieces of data from different systems don't always match

Securing Big Data :
Protecting information from hackers and/or advance persistent threats (APTs)

Recruiting/Retaining Talent :
Big data experts are extremely hard to find

ETL (Extract, Transform, Load) tools make it easier for organizations to accurately process large volumes of data by pulling it out from one or multiple databases and unifying it in one place.

Benefits of using ETL tools

- Improved performance
- Interpretable and logical flow
- User-friendly interface
- Increased ROI
- Operational flexibility
- Efficient data models
- Enhanced business intelligence

STEP 5

DERIVING INSIGHTS

By 2022, 90% of corporate strategies will explicitly mention information as a critical enterprise asset and analytics as an essential competency.

Use Predictive Analysis to Drive Competitive Advantage

01 Clustering can help decipher patterns and features in data that are not discernable in graphs

02 Supervised algorithms analyze past data & uncover crucial trends to make predictions

03 These algorithms help develop highly-effective processes

04 Predictive models are most beneficial when they're operationalized

The global market for predictive analytics is projected to reach approximately **$10.95** billion by **2022**, growing at a compound annual growth rate (CAGR) of around **21%** between **2016** and **2022**.

Use Data Visualization to Aid Reporting

Data visualization refers to the pictorial or graphical presentation of complex data.
It helps in sound reporting and decision-making.

Research States That:

Presenters using visual aids are **43%** more effective in pursuing audience members to take a desired course of action than the ones who don't

Visual data discovery tools will be growing **2.5** times faster than the rest of the business intelligence (BI) market

Benefits of Successful Data Visualization:

- **01** Converts complex analytical data into logical information
- **02** Answers questions through information processing
- **03** Provides context to the visual story
- **04** Helps identify future patterns and trends

With Data Visualization You Can:

- **01** Understand large volumes of information quickly
- **02** Detect relationships between different variables
- **03** Gain competitive edge
- **04** Create visually-impactful & engaging data representations

Learn more at Visit : rsystems.com/mdm Queries: analytics@rsystems.com

#Your Digital Transformation Partner

© 2020 COPYRIGHT R SYSTEMS, INC. ALL RIGHTS RESERVED. R Systems and all other R Systems Inc. product or service names are registered trademark or trademark of R Systems Inc. in the USA and other countries.

Privacy Policy | Terms of Use