



Trustworthy Data and Information

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Trustworthy Data Matters - What if...

- **We couldn't trust:**

- Bank Transactions
- Tax Returns
- Medical Tests
- Engineering Calculations
- Air Traffic Control
- Missile Guidance Systems
- Computer Software Coding
- Birth Records
- Public Notices





Global B2B Transactions Approach \$218T Value!



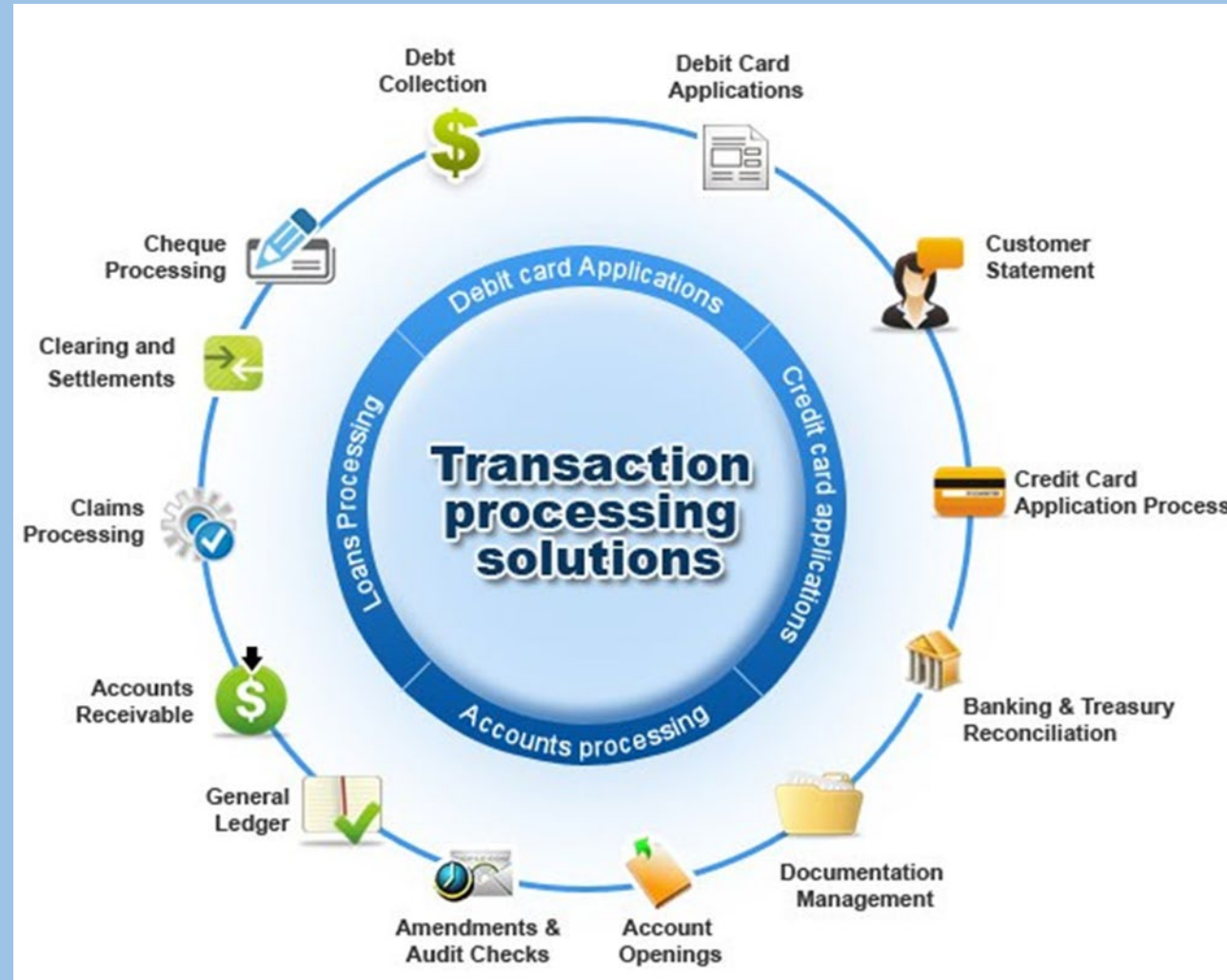


Is Our Data Trustworthy?

- How many financial transactions are there per day?
 - *“According to the CapGemini/RBS World Payments Report 2015, total non-cash payments globally, including all wholesale and retail electronic payments, amount to 389 billion per year, equivalent to 1.06 billion movements per day.”*
- As consumers, we expect all our transactions to be correct!
- DOE contractors run “final” data monthly...how many transactions do we think we process?
 - **Do we have the same expectation of our data?**



Typical Banking Process





21st Century Technology

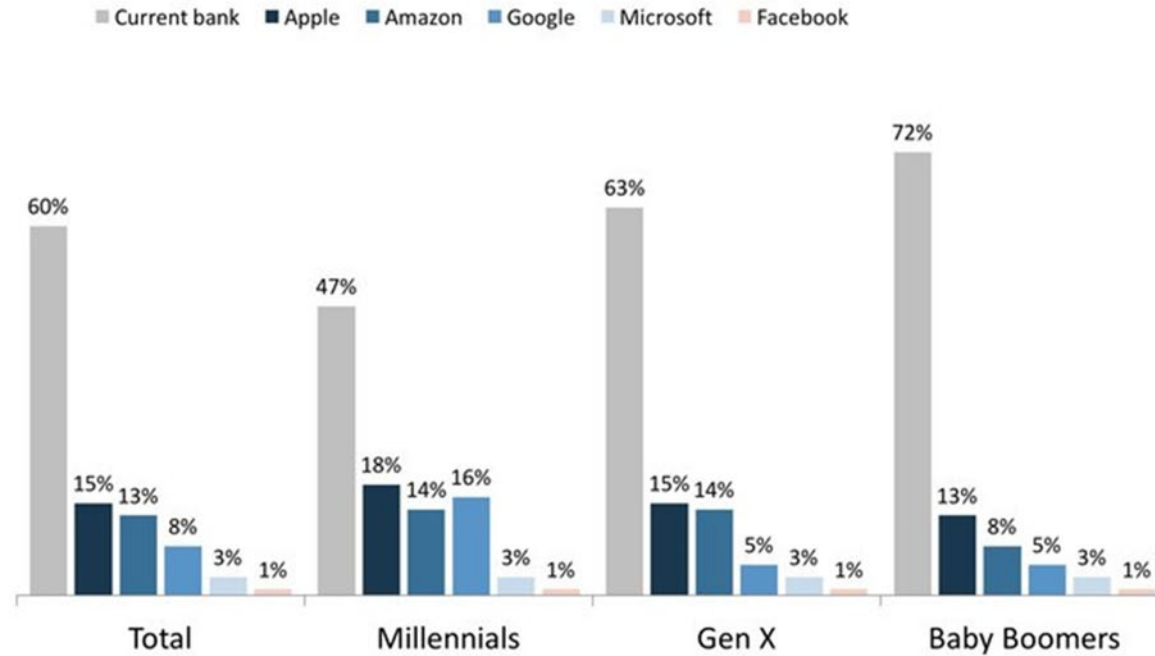




Changing the Data and Information Landscape

US Millennials Trust Tech Firms To Provide Them Financial Services More Than Their Bank

Which company would you trust most to provide you financial services, such as checking accounts and loans?



Source: BI Intelligence survey, n= 1,088

EXCLUSIVE DATA FROM
BI INTELLIGENCE







More Like Herding Cats at an Egg and Spoon Race!





Big Data Management!





So What Exactly is Trustworthy Data?

- Data that can be reliably used **by all** to make informed decisions
- Trustworthy Data characteristics are:
 - **C**urrent
 - **A**ccurate
 - **C**omplete
 - **R**epeatable
 - **A**uditable
 - **C**ompliant
- Institutionally demonstrated as **reconciled** and **validated**



CACRAC – Karen’s Version





CACRAC – Craig's Version





How are these Characteristics Defined?

- **Current**

- As agreed to or directed, such as time now, end of reporting period, or a predetermined specific period of time. Unless the data is current, any use of the data to reflect, project, or trend will be yesterday's news. **Current** is the lynch pin of each of the other characteristics. If your data and information is not current, there is no need to worry about accurate, complete, repeatable, or auditable. It would be better to start over.

- **Accurate**

- Without error, mistake, miscalculations, or anomalies. If the data is not **accurate**, there is no need to be concerned about current, complete, repeatable, or auditable. It would be better to start over.



More Definitions

- **Complete**

- Comprehensive, all inclusive, total, or entire. If the data is not **complete**, then current, accurate, repeatable, and auditable do not provide the intended value because you are not seeing the entire picture.

- **Repeatable**

- The ability to reproduce current, accurate, complete, and auditable results. If the process is not **repeatable**, it cannot be demonstrated, or validated, nor can deficiencies be pinpointed and resolved.



Finally

- **Auditable**

- The ability to trace the source through the entire system/process to validate the results. The inability to ***audit*** data or information places both the process and results in an indeterminate status with respect to data/information credibility/trustworthiness.

- **Compliant**

- Demonstrated as meeting the Current, Accurate, Complete, Repeatable, and Auditable characteristics (above), and meets specific requirements of applicable governing policies, requirements, procedures, guides or practices.



CACRAC's Current Nesting Ground

- **DOE G 413.3-10B – Earned Value Management System(EVMS) - Draft**
 - 2.2 Current, Accurate, Complete, Repeatable, Auditable, and Compliant Data and Information/Records
 - Unless or until data and information can be demonstrated as Current, Accurate, Complete, Repeatable, and Auditable, it cannot be effectively assessed for compliance against governing policies, requirements, procedures, guides or practices.
- **Office of Project Management (PM) Earned Value Management Systems Compliance Review Standard Operating Procedure (ECRSOP)**
 - 1.2.1 EVMS Credentialing
 - Verification of a contractor EVMS ensures the data and information produced by the management and control system is Current, Accurate, Complete, Repeatable, Auditable, and Compliant for determining a project's status.



CACRAC's Migration

WRPS Governing Documents:

- **Code of Business Ethics and Conduct**

- **2.7.1 Fundamentals of Business Data and Information**

- All TOC Team Members are required to ensure that all data and information is Current, Accurate, Complete, Repeatable, Auditable, and Compliant/Trustworthy with applicable governing requirements. This data and information condition is achieved through performance of validation checks, ensuring our data and information is trustworthy, and can be reliably used by stakeholders to make informed decisions.
 - These business fundamentals apply to individually, organizationally, and or system generated data and information. **Knowingly passing data which is NOT Current, Accurate, Complete, Repeatable, Auditable, or Compliant/Trustworthy or willfully bypassing/manipulating validation checks or the lack of validation checks, without full disclosure/identification/annotation is considered a violation of these “Ethical and Compliant Business Practices” found in this “WRPS Code of Business Ethics and Conduct.”**



CACRAC Native Ground

- **WRPS Project Controls System Description**

- 1.1 Management Commitment Statement

- EIA-748, DOE guidance, and this System Description necessitate that the data and information generated by the EVMS is Current, Accurate, Complete, Repeatable and Auditable, and Compliant

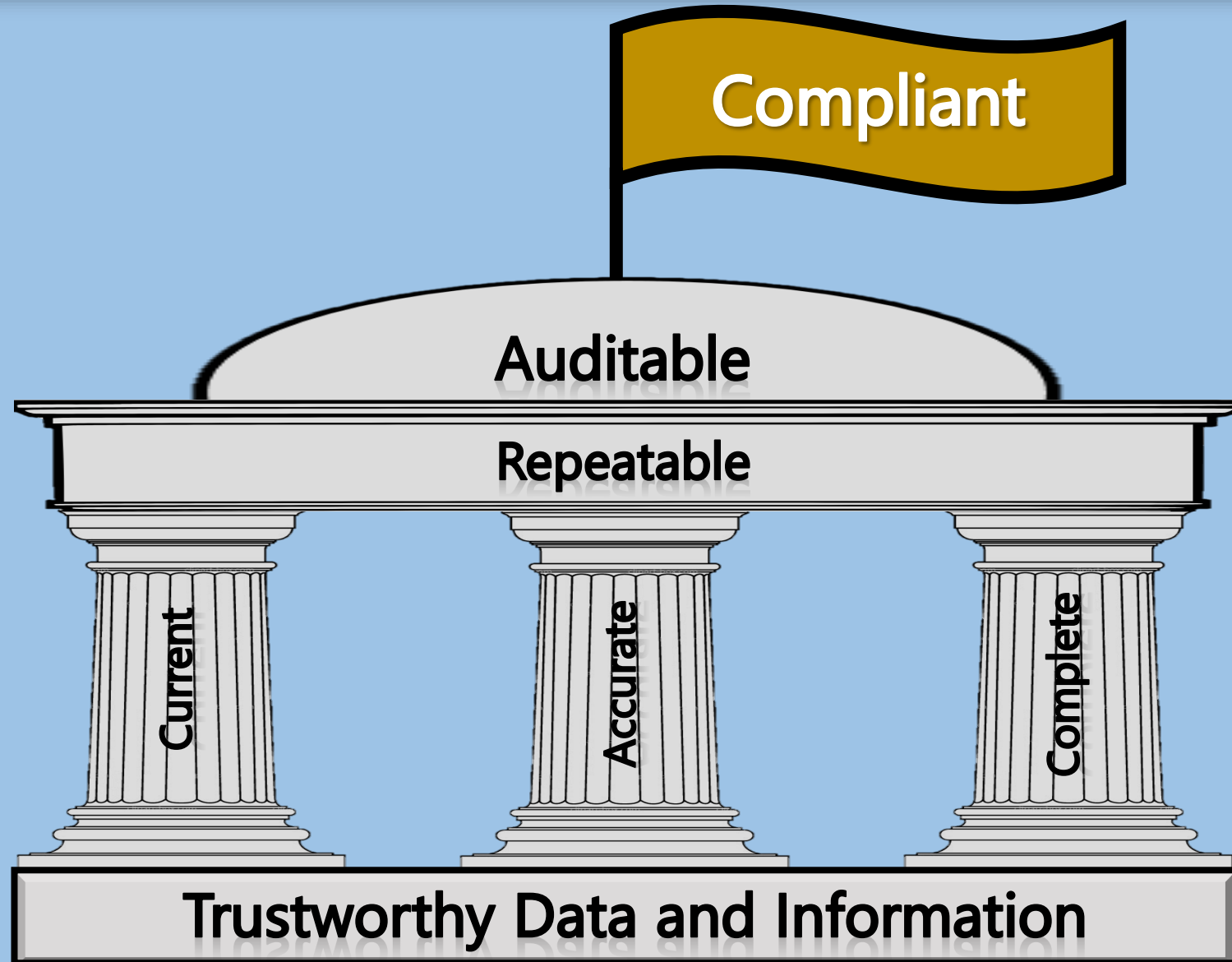
- **WRPS EVMS Surveillance Guide**

- 2.0 Process

- The surveillance program determines if appropriate controls, discipline, and rigor remain in place, as originally certified, evaluates the operation of the Contract's management system, and **verifies internal and external data and associated reports are Current, Accurate, Complete, Repeatable, Auditable, Compliant.**



Trustworthy Data is the Gold Standard!





Compliance Achieved!

