

Livestock Business Intelligence Ecosystem

Bridging best practices and industry standards

● Bidirectional Information Exchange value proposition:

Increased market sales, higher product margins, better traceability and higher product quality result when¹:

1. dynamic bidirectional information networks connect business associates;
2. business processes lead to full utilization of exchanged information (business intelligence).

● Business Eco-system description:

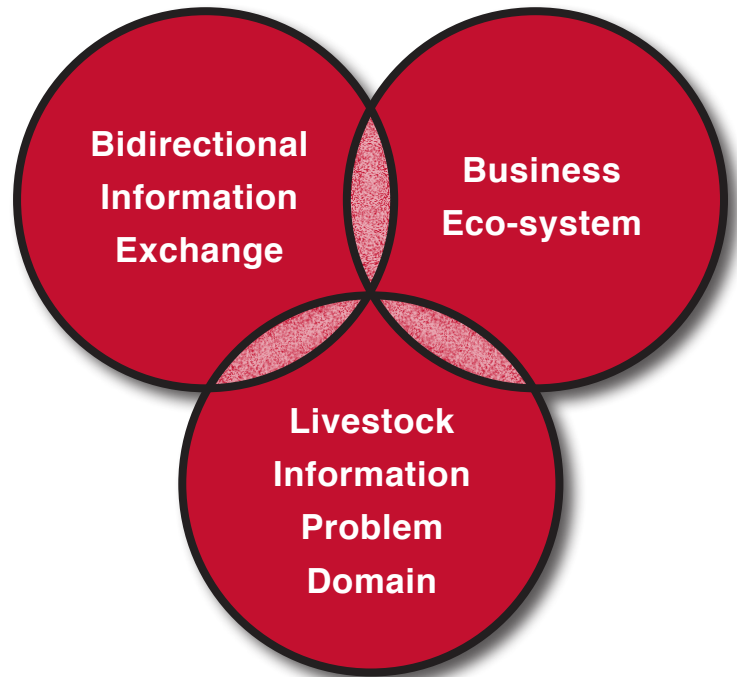
“An economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world. The economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organisms also include suppliers, lead producers, competitors, and other stakeholders. Over time, they coevolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies.

Those companies holding leadership roles may change over time, but the function of ecosystem leader is valued by the community because it enables members to move toward shared visions to align their investments, and to find mutually supportive roles.”²

● Livestock Information Problem Domain:

Market exchanges, livestock producers, livestock infrastructure providers and government animal health regulators require:

1. a highly scalable, reliable and easy to maintain information repository for recording high volumes of animal life and history event information;
2. a facility to register and record Livestock Premises geolocation details;
3. the functionality for tracing animal movements within and between livestock premises;
4. stored information accessible by state of the art business intelligence analysis and reporting tools;
5. multi-user access controls to segregate information;
6. support for sensor, id readers, services and appliances;
7. an information exchange facility for sharing information between collaborating business partners.

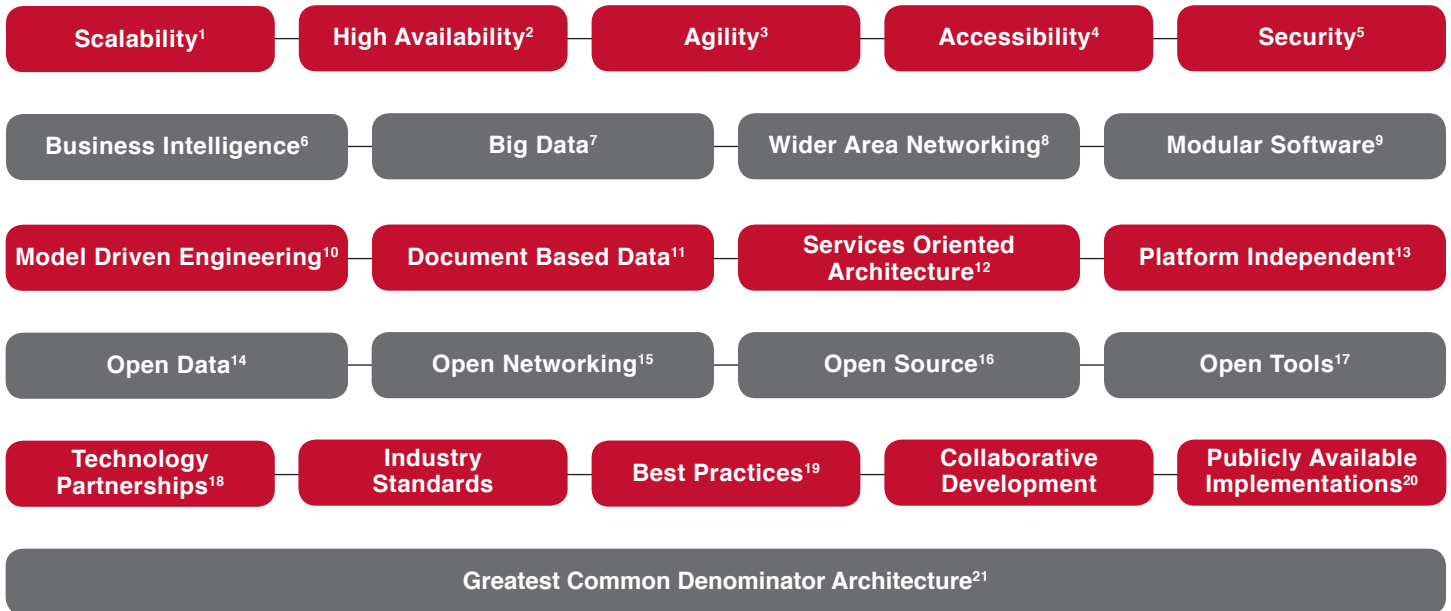


¹ (See Akerlof, Spence, Stiglitz work on 'Analyses of markets with asymmetric information.' which won the 2001 Nobel Prize for Economics.)

² James Moore 1993 Harvard Business Review

Business Information Ecosystem

Technology Architecture Requirements



Verticon Tracker Cloud Implementation Features

- ¹ Scale Horizontally using distributed storage system clusters and publish/subscribe messaging.
- ² Insure uptime with replica datasets for storage and redundant message brokers running on cloud and dedicated hardware.
- ³ Separation of concerns based framework that utilizes schema-less datastores and application runtimes that can be dynamically reconfigured and re-provisioned
- ⁴ Information interexchange for Multi-OS Rich Client Platform (RCP) applications, mobile apps, web clients, and multiple programming language access drivers
- ⁵ Role Based Access Control (RBAC)
- ⁶ Actuate's Business Intelligence Reporting Tool (BIRT) framework
- ⁷ 10gen's MongoDB
- ⁸ Message Queue Telemetry Transport (MQTT) an optimized protocol for end user access devices, sensors, and appliances.
- ⁹ Eclipse Frameworks and Open System Gateway Initiative (OSGi) runtimes on Java Virtual Machines
- ¹⁰ Eclipse Modeling Framework (EMF)
- ¹¹ XML Metadata Interexchange (XMI) and JavaScript Object Notation (JSON)
- ¹² OSGi Declarative Services, Webservices, MQTT publish subscribe channels
- ¹³ Components and applications for PCs, Servers, Appliances, Mobile devices, Sensors
- ¹⁴ Published Data access and schema specifications
- ¹⁵ Industry standard public network protocols HTTP, MQTT, Web services and APIs
- ¹⁶ Eclipse Public License <http://www.eclipse.org/legal/epl-v10.html>
- ¹⁷ Eclipse IDE and Business Analyst Toolkits
- ¹⁸ Eclipse Foundation, OSGi Foundation, 10Gen, Acuate, IBM, Verticon, Inc.
- ¹⁹ Agile and modular design and implementation; Standard configuration, logging and fault management, network, systems, and application monitoring framework
- ²⁰ Public Repository based implementations with Industry friendly public licensing
- ²¹ Architecture standards and implementations that enable the common commercial and public community

