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The Dynamic World of Registries: Planning for the Future

"Reassessing your Registry Direction: Strategies for Moving Forward with Registry Projects"

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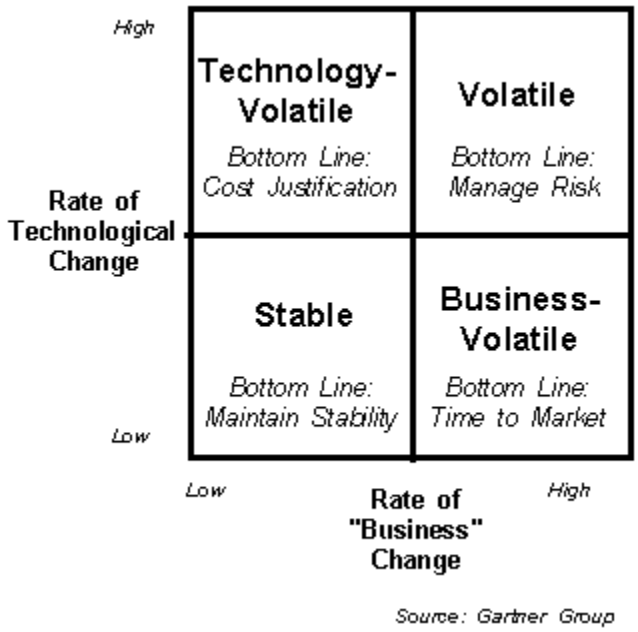
Background:

- Immunization registries are NOT just a technological challenge, but rather a business opportunity to create lasting value for public health infrastructure and improvements in immunization status of children.
- The development of immunization registries, like other systems projects, is subject to the triple constraint of business risk, time and resources.
- They are a major Program Management, Project Management and Risk Mitigation Challenge
- Registry development is occurring during a period of volatility in both healthcare delivery and technology
- Public and private funding continues to be tight.
- A major shakeup in the registry software vendor marketplace has left some projects without technical support.
- Year 2,000 issues provide many organizations with an opportunity to reengineer systems.

Key Issues:

- How do projects re-assess where they currently are with respect to their registry projects?
- What strategies will help projects "get the most" out of what they have?
- What analytical techniques and tools will allow a project to assess its current technical, financial, organizational, political, and policy status and determine which aspects should survive and which should not in a period of increasingly constrained resources?
- How can projects identify supportable strategies and technologies?
- How can projects identify tradeoffs and make decisions?
- How can projects look for new ways to attract broader constituencies into the coalition of organizations that typically support a registry initiative?

In this presentation, I will identify some methodologies and graphic tools to assist projects in working through these problems.



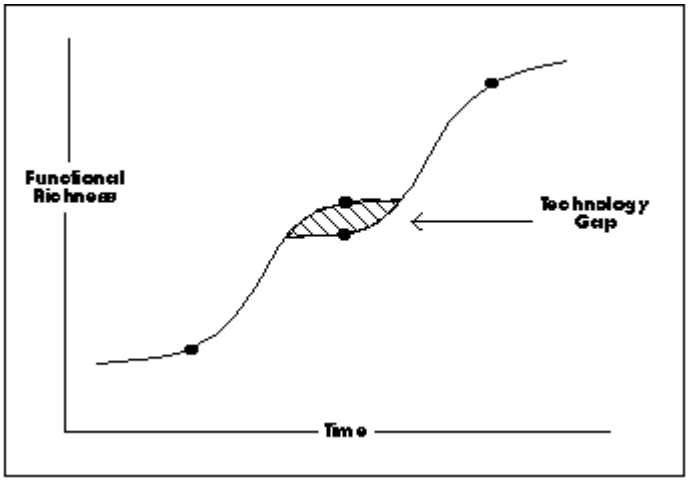
This grid depicts the criteria for justifying technology and business choices during periods of change

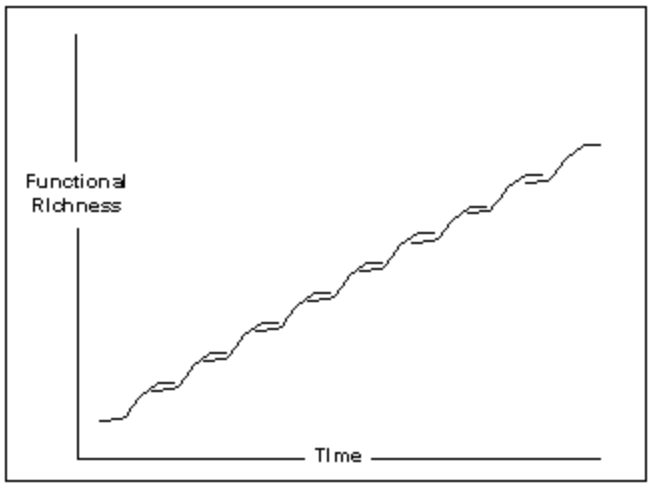
Where rate of technology change is high and business volatility is stable-
Bottom line = cost justification

Where rate of technology change and business volatility are both high
Bottom line = manage risk

Where technology is stable and business is stable
Bottom line = maintain stability

Where technology change is stable and business is volatile
Bottom line = time to market





Catch the Wave and Ride the Rapids:

Gradual Migration to Rapid Change
("Permanent Whitewater")

Systems development used to be described in terms of a life cycle

Early technology had a life span of about 10 years (what we now call "legacy systems")

New technology was introduced in 5 year cycles (Old IBM "announcement", "order position" method)

The intervals at which functional richness are depicted on the first diagram, and IT managers could decide when to make changes.

The second diagram shows that new technology is entering the market in decreasing time intervals, making it more difficult to determine when to make change.

Therefore even more important to understand interplay between business requirements and technology.

The Technical Architecture Process:

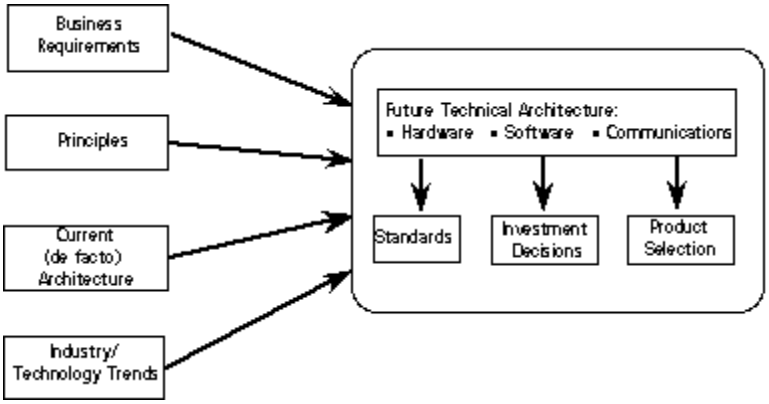
The development of a Technical Architecture is a process that Health Departments can facilitate among its stakeholders to develop a blueprint for making choices about hardware, software and communications procurements for its Immunization Registry Project.

From it flow standards, specific purchase recommendations, and other investment decisions regarding technology and its use in the organization and project.

From its name, technical architecture might seem to be the exclusive province of technology workers, but these points describe its larger perspective:

- Architecture isn't a product, it's a process (Gartner Group)
- Its crucial objective is to improve the performance of the organization.

- It is not a platform from which to preach a certain methodology or justify a predetermined technical direction
- It is a blueprint for technology choices.
- It is not technical mumbo-jumbo: it must speak to the business side as well as the technical side of the enterprise. In Registry development, it must also speak to political issues, and balance public health requirements with the needs of the private healthcare sector.



Components of Technical Architecture:

- Business Requirements- these must be the driver, not technology issues
- Principles- examples are data accuracy, application ease of use, infrastructure, use of standards, etc.
- Current (de facto) architecture
- Industry/Technology trends

Understanding of current (de facto) architecture:

- Before an organization can move forward, it must understand where it has been and where it is currently in terms of its technology choices.
- Often, this step involves careful documentation of current systems and infrastructure in a way that has never been done in the organization.

Examples:

- While many organizations don't have an existing immunization registry, they may have other systems- WIC, and Birth Certificates, for example that are in older technology or may be or are being upgraded.
- This analysis is especially important in private health care settings as many of these are also using old technology but, as a result of merging or being acquired may be integrating or upgrading.

- Also, many healthcare and insurance organizations are in the throes of Year 2000 projects, and while they may have suspended new activity, may have already developed long range replacement or new development projects which are relevant to registry activity.

Relevant Industry/Technology trends:

An organization needs to spend a portion of time evaluating new technologies, and studying new products and strategies emerging on the horizon.

While few organizations can devote extensive resources to such industry examination, some technology tracking is necessary.

One should not expect all investigations to yield products or strategies that in the end will be deployable or even relevant.

Examples:

All of the technologies- old, new, and emerging need to be evaluated in terms of

- their strengths and weaknesses
- robustness, concurrent multi-use
- desktop functionality and support requirements
- ability to distribute function, software, algorithm
- cost, and life cycle

"Trends"

- the explosion of the Internet and Web Browser technology
- Electronic Data Interchange (EDI) its standards such as x12 and HL7
- the Electronic Clinical Record movement
- the administrative provisions of the Health Insurance Portability Act, Child Health Insurance Program
- Medicaid Managed Care waivers and their provisions
- Child Health Insurance and its provisions
- Immunization requirements of programs such as Health Start, Early Head Start, implications of Welfare Reform

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Ideally, the technical architecture process should be an interactive, iterative process involving all stakeholders.

- Meetings should be facilitated and documented.

- Like building architecture, the process must include some technical professionals and sometimes "go back to the drawing board."
- The investment in planning will yield a better-constructed registry.

The information from the four factors is combined to build a technical architecture description.

- Different solutions are appropriate for different components of the architecture, particularly those involved in data capture versus data access.
- A prudent strategy is to mix and match components from along this continuum for an optimal architectural solution.
- In most cases, operating procedures at provider clinics need to change to accommodate the registry.
- Technical alternatives exist along a continuum of options from low tech telephone-fax to high tech web browser, which can then be analyzed in terms of costs, resources and other business criteria so that selections can be made.
- This process also builds buy-in from stakeholders and increases the likelihood of obtaining sustainable participation and resources.

Conclusions:

- Projects must be careful to conduct continuous assessments in a turbulent world.
- Technical architectures no longer endure for years as product lifecycles are shortening.
- Stakeholders have to be attracted based on an attractive set of benefits and an appropriate share in the costs.