Attributes of a Robust Technology–Leveraging Compliance Assurance System

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Presentation Outline

- Introduction/Background
- A Few Terms
- The Top 10 List of Attributes
  - Questions to pose
  - Implications
- Additional Considerations
Introduction/Background

- Top 10 List based in part on T3’s EMIS implementation work for various clients, including
  - Devon Energy: multiple sites – custom tools
  - Westar Energy: multiple sites – ops Environmental
  - ConocoPhillips: 5 refineries, multiple solutions
  - NCRA: McPherson Refinery – Enviance
  - BP: 3 refineries – Essential Compliance Manager module, principally
  - Confidential Client: 5 chemical plants using SAP xEM
A Few Terms

- **EMIS**: Environmental Management Information Systems
- **Stakeholders**: Those contributing to (having a stake in) your EH&S compliance picture (operators, supervisors, staff personnel)
Top 10 Statements You Wish You Were Hearing from your EMIS Stakeholders
10. “Reports are so easy to create I can do them myself. And they run so quickly!” (Graphing/Reporting)

- **Look for:**
  - Key reports/metrics on your “my.EMIS page”
  - Scheduled report delivery
  - Tie-in to enterprise report builders/apps

- **Does the user need to understand the database table structure to create ad-hoc reports?** Can users format their own reports?
9. “I’m no database programmer, but I can create all the equations I need with ease.” (Computational Abilities)

- Equation libraries are good, but most tools are too generic to handle the real world needs (e.g., tanks storing multiple liquids)
- Bonus: Can a user deduce the factors that went into a calculation at the point of a calculation?
8. “My system tells me when I am trending toward an exceedence, without my babysitting it!” (Predictive Capabilities)

- Proactive alerts to stave off non-compliance
- Can alarms be triggered from both incoming data and calculations?
- Generally requires integrations with other systems (e.g., process historian, ERP, maintenance)
- Corollary – data validation at point of entry
7. “Our disparate systems speak the same language, and communicate effortlessly.” (Ease of Integration)

- If two systems are sharing data, do they have to traverse firewalls? If so, how?
- Does the system allow access to external tables?
6. “The ... team showed enthusiasm and attention to detail in building out our pilot facility... In turn, this allowed us to easily complete a full self-implementation of the system model...” (Scalability)

- Have rollouts larger than yours occurred? What problems were faced?
- What system limits does the software provider offer?
5. “Every user has just what they need to do their job, no matter where they are located.” (Accessibility, Security)

- The web has transformed the EMIS space; is your solution taking advantage of the interconnectivity of the internet?
- Expanded connectivity through handhelds
- for field data entry
4. “Software improvements and bug fixes take place at no inconvenience to me, my team, or our IT depart.” (Ease of Upgrades)

- ASP solutions a clear winner here
- Corollary: Ease of upkeep. What is the level of effort associated with external changes (e.g., upgrading to Windows 2003)?
3. Since we implemented our solution two years ago, we’ve never experienced system downtime or a loss of service. (Reliability)

- “Fewer Moving Parts”: Look for systems that don’t need a lot of servers to operate
- Service Level Agreements
- Are errant emails “erupting” when the server goes down?
2. “Users see just what they need to see, with single sign-on.” (Security)

- Only approved users access the system, and user level security also vital in serving up pertinent content
- What safeguards exist to prevent destruction of archived data?
- Are changes auditable, meaning, can you tell who changed what value when?
1. “It’s so simple to use, our operators had no trouble adopting the new work practices.” (Simplicity)

- How many screens does the end user have to view to mark a given task complete?
- View the user interface(s) critically, from different user perspectives.
- Adoption remains the biggest barrier to successful implementations; keep it simple.
Additional Considerations

- Task Management
- Provider-specific risk
- Support
- Implementation Strategies
Compliance Module Shootout

- Assign Tasks, RP, Due Date
- Event Driven Task Functionality
- Task A generates Task B
- Link Tasks to Conditions/Regulations
- Link Single Tasks to Multiple Regulations
- Complete Tasks Simply (Email > Task Comp Form)
- Deviation – Enter Additional Info
- …
Recap

1. Simplicity
2. Security
3. Reliability
4. Ease of Upgrades
5. Accessibility
6. Scalability
7. Ease of Integration
8. Predictive
9. Computational
10. Reporting
Questions or Comments?

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