Webinar:
Digitalizing Operations Quality in Regulated Environments
Key Takeaways from Hundreds of Software Deployments
40-year veteran, based in Silicon Valley, CA, USA

Experience:
- Chief Commercial Officer for SIMCO Electronics
- Previous executive roles with AT&T Bell Labs, Silicon Graphics, several high technology start-ups

Education:
- Executive Dev. Program, Northwestern University
- MS Electrical Engineering, Purdue University
- BS Electrical Engineering, Rutgers University

John Connelly
Chief Commercial Officer
SIMCO
SIMCO Fast Facts:

- Calibration & Repair Services +
- CERDAAC Cloud Software for Regulated Operations Excellence

16 of top 20 Biomed manufacturers
14 of top 20 Aerospace & Defense
3K Customers
350 Employees
60 Years of service
CERDAAC
Connected suite of solutions for regulated operations excellence

To learn more about SIMCO / CERDAAC:
• Visit us at www.simco.com
• Email us at info@simco.com
• Call us at +1 (866) 299-6029
We’re embracing new digital technologies at an accelerating rate

My digital investment:

<table>
<thead>
<tr>
<th>Application Platform</th>
<th># of Apps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>149</td>
</tr>
<tr>
<td>Tablet</td>
<td>118</td>
</tr>
<tr>
<td>Computer – Personal</td>
<td>93</td>
</tr>
<tr>
<td>Computer – Work</td>
<td>57</td>
</tr>
<tr>
<td>TV</td>
<td>20</td>
</tr>
<tr>
<td>Other Cloud Apps - Personal</td>
<td>15</td>
</tr>
<tr>
<td>Other Cloud Apps - Work</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>469</td>
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Wow, that was a surprise!
The Promise of Digital is Real

- More consistent quality
- Faster, leaner processes
- Cleaner, accessible data
- More informed decisions
- Reduced cost, more profit
Digital is Especially Appealing to Regulated Manufacturers

Regulated Manufacturers:

1. Face a continuously rising bar on quality and regulatory compliance

2. Constantly striving to deliver more and newer products, more profitably
Not every software deployment is a success

14% of IT Projects Are Failures
CIO Magazine

25% of Technology Projects Fail Outright
Forbes

30% of Application Deployments Fail
Wired Magazine

70% of Digital Transformations Fail
McKinsey & Company

More than half of all prof. service projects are delivered past deadline or over budget
Wellingtone

... not by a long shot
The benefits and imperative of digital are clear—improved quality, reduced waste, more agility, and increased profits. However, more than a third of software deployments struggle with avoidable pitfalls.

The digital projects that promise the greatest impact are often the most complex and difficult to deploy.
Fortunately, there are some common and avoidable pitfalls

Will share key takeaways from:

✓ Hundreds of software deployments in highly regulated environments
✓ Analysis of research on why digital projects fail
✓ Frequent blunders on my own path to digital transformation
Digitization
Conversion (Data)
Migrate your data from analog to digital

Digitalization
Adaptation (Process)
Improve your processes by leveraging digital tools

Digital Transformation
Creation (Business)
Transform your business to new digital models
Terminology (continued)

Few agree on digital **definitions**

All agree on the **progression**

Understanding the progression is key to successful deployment
Terminology – Example

Personal example: my family’s most prized possessions

Digitization (scanned jpegs)

Digitalization (restored, tagged jpegs, stored in cloud)

Digital Transformation (several new digital entities made this possible)
Terminology – *Example*

Professional example: paper form, filled out, then manually routed to set of approvers

<table>
<thead>
<tr>
<th>Digitization</th>
<th>Digitalization</th>
</tr>
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<tbody>
<tr>
<td>• Create electronic duplicate of paper form</td>
<td><strong>A better electronic form:</strong></td>
</tr>
<tr>
<td>• Route electronic form as email attachment</td>
<td>– Define required and optional fields</td>
</tr>
<tr>
<td></td>
<td>– Create computed fields</td>
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<tr>
<td></td>
<td>– Create conditional fields</td>
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<tr>
<td></td>
<td>– Replace open text fields with drop-down menus</td>
</tr>
<tr>
<td></td>
<td>– Provide pop-ups that define each field</td>
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<td></td>
<td><strong>Accelerated approvals via in-app routing:</strong></td>
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<tr>
<td></td>
<td>– Automate routing with recipient alerts</td>
</tr>
<tr>
<td></td>
<td>– Establish conditional routing, based on form data</td>
</tr>
<tr>
<td></td>
<td>– Escalate when approval is stalled</td>
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<td><strong>Actionable insights via automated reports:</strong></td>
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<tr>
<td></td>
<td>– Track form volume, analyze form data</td>
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<tr>
<td></td>
<td>– Track routing status, time to approve, other KPIs</td>
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Seize the opportunity to digitalize!
Our experience: helping Quality and Operations teams in highly-regulated, lives-at-stake industries to drive operational excellence via digital technology.

We’re helping manufacturers to **digitalize** their operations quality – leveraging technology to drive leaner, faster, more compliant processes.
Four Paths to Failure, One to Success

- Deliver on Promise
  - Failure To Launch
  -dffed ROI
  - Failed to deliver on promise
  - Inefficient and Ineffective
  - Efficient but Ineffective

- Fail to Deliver on Promise
  - Project Not Completed
  - Project late and/or over budget
  - Project on time and on budget

Project Execution
Digital Deployment Failures – Root Cause Analysis

- Project Management (Scope, Metrics, Communication)
- Resources (People, Partners, Capital)
- Processes (Documentation, Change Control)
- Technology (System, Ecosystem, Data)
Project Management *(Scope, Metrics, Communication)*

Digital deployments demand project management:

- **Scope / Requirements** – *Keep solution out of it, include what’s not in scope*
- **Processes and people impacted** – *should be the primary focus, but often an afterthought*
- **Success metrics** – *promise fulfillment (i.e., opex savings); execution metrics (i.e., time to value)*
- **Resources required & roles assigned** – *establish clear accountability, decision authority*
- **Communication plan** – *within project team and with all those impacted by change*
- **Schedule and budget**

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### Warning Signs

- Leading with solution
- Unclear objectives
- No budget or schedule
- Scope creep

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### Best Advice

- Don’t underestimate the need for project management in digital deployments
- Match the project management investment to the project scope
- Even the smallest projects demand written requirements and clear roles
Resources (People, Partners, Capital)

Obtain needed resources & roles upfront:

✓ Project manager
✓ Executive champion
✓ Process expert / owner
✓ System / ecosystem owner
✓ Data owner
✓ Validation and documentation
✓ System admin / training / support
✓ Capital needed to fund project

Warning Signs
- Unavailable resources
- Conflicting priorities
- Decision paralysis (unclear who decides)

Best Advice
- One missing resource is enough to stall or kill a digital deployment
- Clear decision authority helps avoid decision paralysis
- Involve resource managers to avoid shifting priorities mid-project
Processes (Documentation, Change Control)

Put process improvement front and center:

✓ Identify all impacted processes and process experts / owners
✓ Obtain process documentation (if it exists)
✓ Identify who needs to be involved in process changes
✓ Identify and quantify the waste in each process
✓ Set targets for process improvements – *i.e.*, *hours saved, errors reduced*

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<th>Warning Signs</th>
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<tr>
<td>Affected processes not identified until solution is deployed</td>
</tr>
<tr>
<td>Solution fails to deliver on promise of improved quality, speed, profits</td>
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With every project, seize the opportunity to not only digitize, but *digitalize* – leveraging technology to drive leaner, faster, more compliant processes.

Combining Lean 6σ with Digital can double your savings – *Bain & Company*
Technology (System, Ecosystem, Data)

Technology:

- Don’t put the cart before the horse – requirements should drive technology
- Your needs are rapidly evolving – choose technology that can evolve with you
- Planning to add or replace systems? Opportunity to consolidate systems?
- Need for system integration? If yes, what will be system of record?
- Seize opportunity to improve data – making it cleaner and more accessible
- Plan for legacy system and legacy data – retain, retire, archive?

Best Advice

- Seek opportunities to consolidate systems – fewer is often better
- Plan for system verification & validation – leverage vendors for assistance
- Legacy data – consider ongoing access vs. costly migration to new systems
Avoid digital myopia

Take the broader view to ensure success when digitalizing operations quality
Audience Poll
Audience Poll:

In the past 24 months, how many work-related digital deployments or upgrades would you estimate you have experienced, in any capacity?

(influencer, decider, project manager, process owner, sys admin, user …)
What percentage of those digital deployments or upgrades would you consider successful – on budget, on time, and delivering on its promise?
Thank You

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