

#### Introduction

- George Allen, VP of Solutions Enablement at Inovity
- Started programming at age 10; working in computer lab at 11
- B.S. in Electrical Engineering from Northern Illinois University
- 28 years in Auto ID Industry
- Worked in all sides of the industry, including printer, software and consumables, manufacturers and systems integrators
- Pre-sales System Engineer with Inovity for 24 years
- Designs, develops and implements data automation solutions for customers in manufacturing, warehousing, supply chain, field service, healthcare, retail and more
- Certified by leading industry manufacturers including Zebra, Honeywell, Cognex, NiceLabel, SOTI, AirWatch, StayLinked, Ruckus, Extreme Networks and more





#### Agenda – 8 Phases (and Takeaways) for Mobile DT

- 1. Digital Transformation *Your* Project
- 2. Determine Your Approach and Milestones
- 3. Identify Gaps, Causes and Obstacles
- 4. Prepare, Plan and Start Working
- 5. Evaluate Partners, Solutions and Components
- 6. Determine ROI and Budget
- 7. Manage the Changes
- 8. Verify Success



#### Phase 1: Digital Transformation ("DT") – Your Project

Different things to different businesses





#### P1: DT – *Your* Project

- Basic > Intermediate > Advanced
  - > ... for the Supply Chain
    - > ... mobility focus

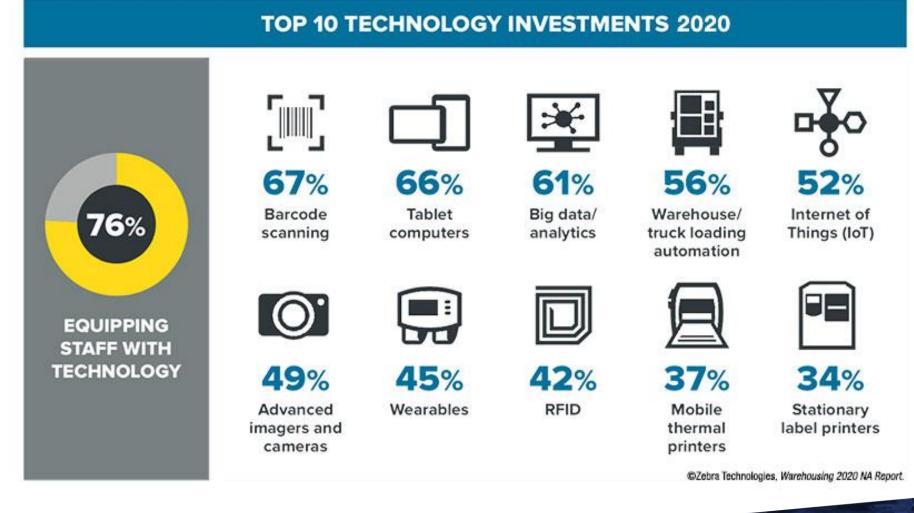


\*No elephants were harmed in the making of this slide



#### P1: DT – Your Project

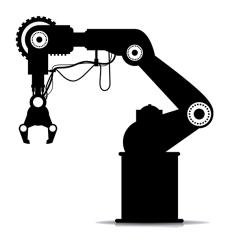
- Developing or investing in new technologies
- AND using them in new ways
- Reimagine how you do business





#### P1: DT – Your Project

- IoT
- Robotics and Automation
- Predictive Analytics
- Al or Machine Learning









MACHINE LEARNING



## Phase 1 Take-away: DT – Your project

- Digital Transformation is NOT
  - a single definition
  - a fixed set of components
- Digital Transformation IS
  - a concept that represents a process and a project
- Your project requires your definition





#### Phase 2: Determine Your Approach & Milestones





#### P2 – Determine Your Approach: Pain or Gain

Pain: What are people complaining about?

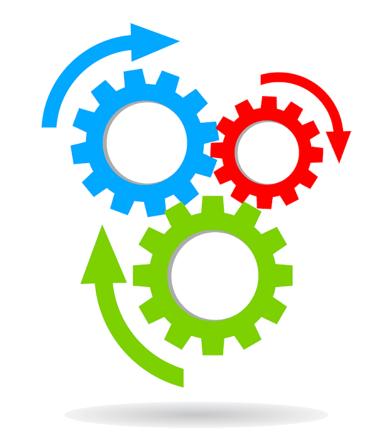
- Gain: What are the inefficiencies, slow-downs and cost sources?
- Good focused approach
  - Builds support
  - Picks the right areas





#### P2 - Determine Your Approach: Workflow Examples

- Receiving example:
  - Hand keying?
- WIP example:
  - Counts on clipboards?
- Shipping example:
  - Manual entries + waiting....
- Good approach for full buy-in





# Determine Your Approach:

Pain or Gain
-vsWorkflow





## How Do You Establish Milestones?







#### P2: Determine Your Milestones

- Major milestone #1:
   Moving from paper to paperless
  - Digital and directed











#### P2: Determine Your Milestones

- Major milestone #2:
  - Use the data for better decisions
    - Visibility enables productivity







#### P2: Determine Your Milestones

- Major milestone #3:
  - Catching what you're missing
    - Not just improving the existing
    - Putting in *new*





### Phase 2 Take-away: Milestones & Approaches

Not just digitizing, collecting or automating data

Reductions in labor and errors

Determine your approach and your milestones





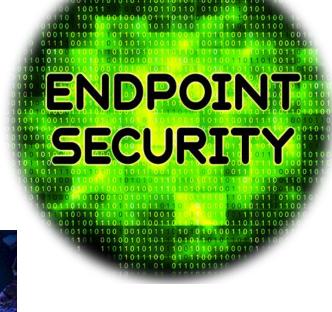
- Map the Gap
  - The DATA GAP
     What you want to know vs. what you currently know
    - What data will you be able to collect?
    - What will that enable you to know or do or prevent?





- Map the PHYSICAL GAP between endpoints and connections
  - Legacy equipment
  - Protocols and communications
  - Location and environment
  - Security







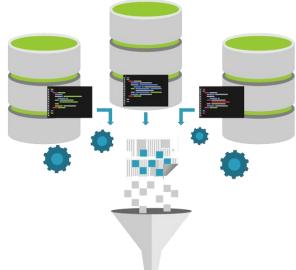
- Drill down to get to the root cause
  - Wrong product was shipped. Why?
    - Worker picked the wrong product. Why?
      - Worker mis-identified the product. Why?
        - Many products look similar.

What can we do to fix that?





- Theorize how DT would help
  - How would it prevent the problem?
  - How would you use the data?
  - How can you leverage the data for predictive analytics?

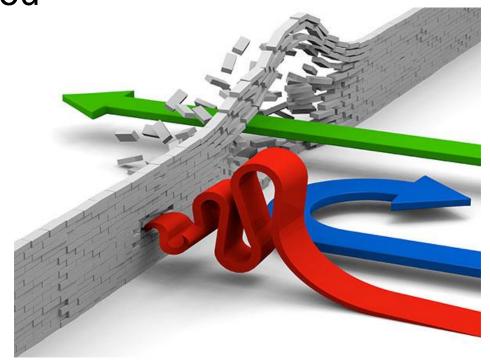






Identify any obstacles to doing what you just brainstormed

- "We've always done it that way"
- Culture changes are necessary
  - Must be championed from top down





#### Phase 3 Take-away: Gaps

- Know what you're improving
  - Root cause
- Know how you want to improve it
  - What should be happening instead?
- Know what you'll have to address to get there
  - Attitudes? Budget? Corporate culture?







#### Phase 4: Prepare, Plan & Start Working

- Digital Transformation
  - Multi-year process
  - Multiple phases
  - Organize in progression for smooth transition







#### P4: Prepare, Plan & Start Working

Develop a multi-phase plan with milestones

APPROVED)

- Investigate the project
- Get support



Project step Mar May June July Aug Oct Dec Process 01 Process 02 Process 03 Process 04 Process 05 Process 06 Process 07 Process 08 Process 09



#### P4: Prepare, Plan & Start Working

• Factor in appropriate timelines and dependencies

➤ Start scanning

➤ Add barcodes

➤ Print barcodes

➤ Design barcodes

➤ Purchase software, printer, labels





#### P4: Prepare, Plan & Start Working

- Plan for wins early and often
  - < 30 days









#### Phase 4 Take-away: Prepare, Plan, Work

- Know how to plan for success
  - Have milestones
    - Make sure they can be measured
  - Prepare timelines and dependencies
    - Make forecasts you can achieve
  - Recognize achievements
    - Small, 30-day goals





#### Phase 5: Evaluate Partners, Components & Solutions

- Partners & services
  - In-house vs. outside companies
  - Look for experience and certifications

















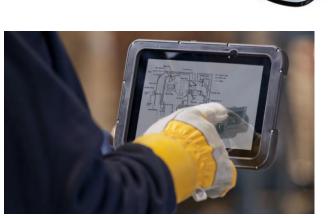






P5: Evaluate Partners, Components & Solutions

- Evaluate products
  - Purpose built vs. general
    - Smart phone vs rugged computer
    - Camera vs barcode scanner
    - Office laser printer vs label printer
  - Device & accessory lifecycle
  - Intended usage environment
  - Tests and simulations









#### P5: Evaluate Partners, Components & Solutions

- Evaluate solutions and talk with references
  - Look for end-to-end solution, not "best of x"
    - Which is right for your situation?
    - Installation? Training?
    - Lifecycle management?
  - Solution that supports expansion
    - Label printing today, cloud-based label compliance management tomorrow
    - Expect functional needs to grow





#### Phase 5 Take-away: Evaluate

- Determine how to validate
  - Partners & services
  - Products (considering environment, usage)
  - Solutions and references

...for your situation and to your benefit





#### Phase 6: Determine ROI and Budget

- Determine the cost of your current operations
  - Baseline to compare improvements
    - Cost of mis-shipments
    - Cost of downtime, rush jobs
  - Labor related
    - Labor costs x hours x days
      - 10 people x \$15/hr = \$150/hr
      - $$150/hr \times 40 hrs = $6,000$
      - $$6,000 \times 50 \text{ weeks} = $300,000$
      - 10% savings = \$30,000
    - Staff retention
  - Inability to expand





#### P6: Determine ROI and Budget

- Add up the costs related to change
  - Hardware, Software, Support, Training
    - Mobile computer
    - Wireless LAN
    - Warehouse management software
    - Integration
    - Training
    - Annual Support Agreements
  - Growth potential





#### P6: Determine ROI and Budget

Determine if the investment is worthwhile

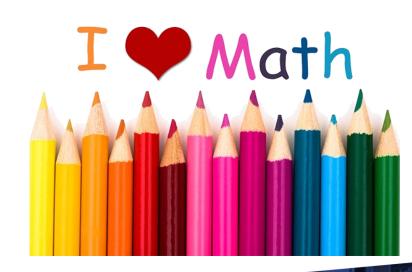
```
Current costs x expected improvement = expected annual savings
                       (10\%)
                                                 ($30,000)
  ($300k)
Project cost + Annual cost /
                                Expected annual savings = Payback time in years
                                         ($30,000)
```

Other factors

(\$50k)

- Reduced expansion costs
- Employee satisfaction & retention

(\$10k)



(2)



#### Phase 6 Take-away: ROI

- Know the costs of current operation
- Add costs related to change
- Determine if investment is worthwhile
- Payback calculator
  - Warehouse management and manufacturing solutions focus
  - Different needs? Let us know!

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#### Phase 7: Manage the Changes

- Prepare your team members
  - Jobs duties will change, technology usage will change
  - Involve them in the process
  - Start slowly





#### P7: Manage the Changes

- Manage the scope
  - Qualify changes are they necessary to meet objectives?
  - Additional phases vs. bigger phases
  - Agreement from team members

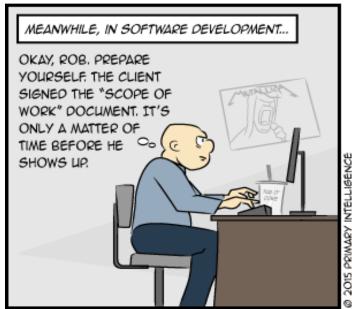




#### P7: Manage the Changes

- Expect changes to scope and timeline
  - Maybe problems, maybe changes because of discovery
  - Create additional projects

#### FEEDBACK INC.





#### BY MARK LARSON





#### Phase 7 Take-Away: Manage the Changes

- Know how to manage the project
  - (really managing people)
- You are changing how people do their jobs
  - Expect some challenges along the way







#### Phase 8: Verify Success

- Are your milestones complete?
  - Did you make adjustments?
  - Did you adjust your expected results?







#### P8: Verify Success

- Do your results match your expectations?
  - Did you measure the results?
  - Re-do time study







#### P8: Verify Success

- Are you ready for the next phase?
  - Technology and business processes keep changing
  - Business market keeps changing
  - Revisit and re-evaluate your operations regularly and continue the journey





#### Phase 8 Take-away: Verify Success

- Know how to prove success
  - Achieving your goals doesn't mean you were successful
  - Goals should align with root cause
  - Have the right goals, with the right solution, and the right metrics, and the language of digital will speak for itself







#### Closing

- We've covered simple, manageable steps in a complex project
- You are now ready to find the next function, next area, next digitally connected widget, the next digital transformation to improve your operations
- DT grows with you





#### **Inovity**

Please stop by booth #8175 to continue the conversation.

George Allen gallen@inovity.com

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