



Construction Technology

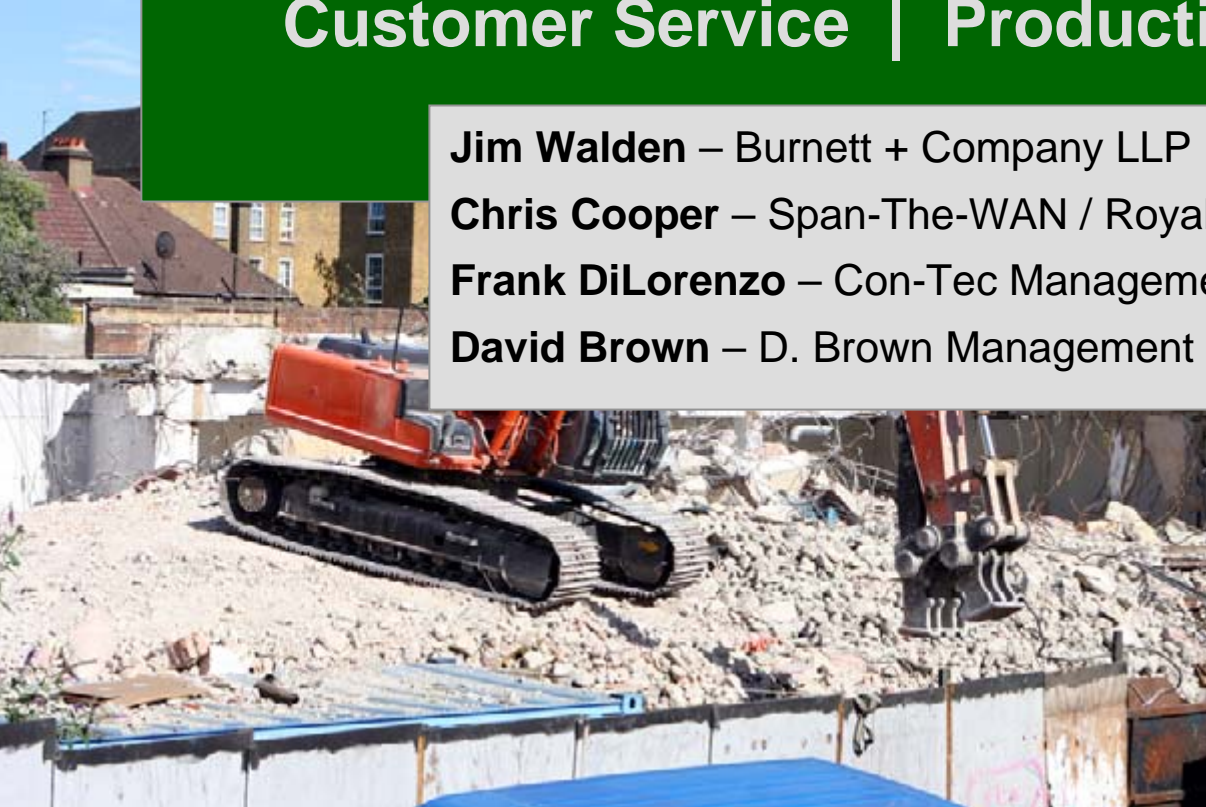
Customer Service | Productivity | Profits

Jim Walden – Burnett + Company LLP

Chris Cooper – Span-The-WAN / Royal Electric

Frank DiLorenzo – Con-Tec Management Systems

David Brown – D. Brown Management



Construction Technology @ 30,000 Feet

The Big Picture View – Connections

- ❑ VoIP
- ❑ Document Imaging
- ❑ Connectivity
- ❑ Field Electronics – Cameras/Laptops/Video
- ❑ Integrated Project Management Systems



The Benefits of Technology

Bonus - Improved Quality & Controls

- Lowered costs
- Real-time information
- Anytime / anywhere information
- Increase revenue per employee
- Integration with suppliers
- Improved customer service



Implementation: Best-of-Breed / Total Integration

The Sports Team Model

Team A

- All players 10% above avg. performance
- The players don't talk to each other
- Coach has to talk to each player individually
- Each player is fighting for the most resources
- Sometimes they get into fights

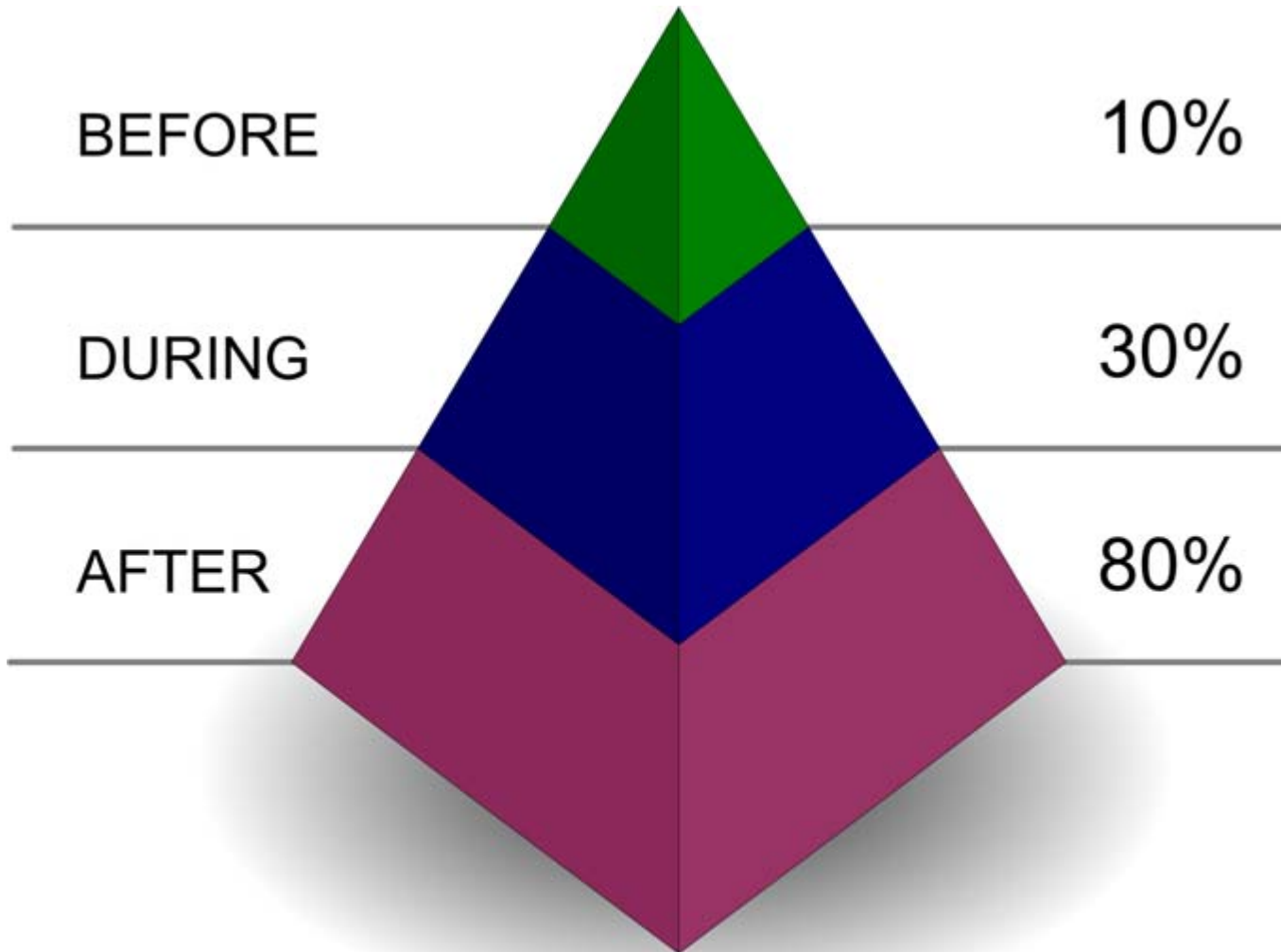
Team B

- All players average performance
- They all like each other & work together
- Coach can talk to everyone using the same language



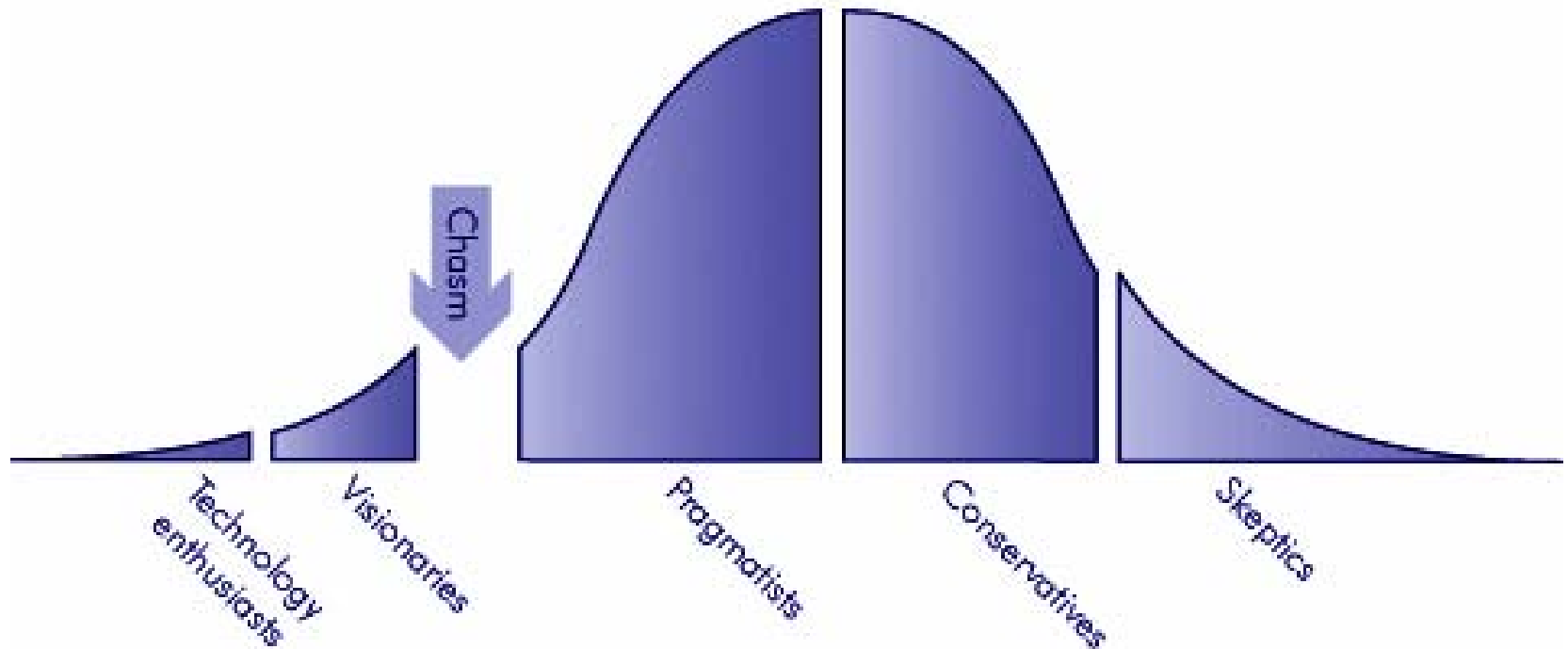
Implementation: The Planning Process

Implementation Phase / Cost Of Problems



Implementation: Technology Adoption Process

People – Crossing the Chasm



An 80% solution implemented fast across the company is far better than a 100% solution and a failed or slow implementation.

Implementation: Start Slow – Finish Fast

The Marathon Runner Strategy

- ❑ Pick one simple process with a clear ROI
 - ❑ EXAMPLE: Timecards
 - ❑ Current Cost: Estimate time to fill-out, double data entry, errors, error correction
 - ❑ Simple App: Web-based entry, spreadsheet with automatic import to acctg., etc.
- ❑ Beta: Start with one project and get it working right.
- ❑ Rollout: Implement 100% across the organization
- ❑ Brag: Make a huge deal about the beta testers, the ROI, less errors, etc.



Royal Electric – Paperless A/P & PO Process

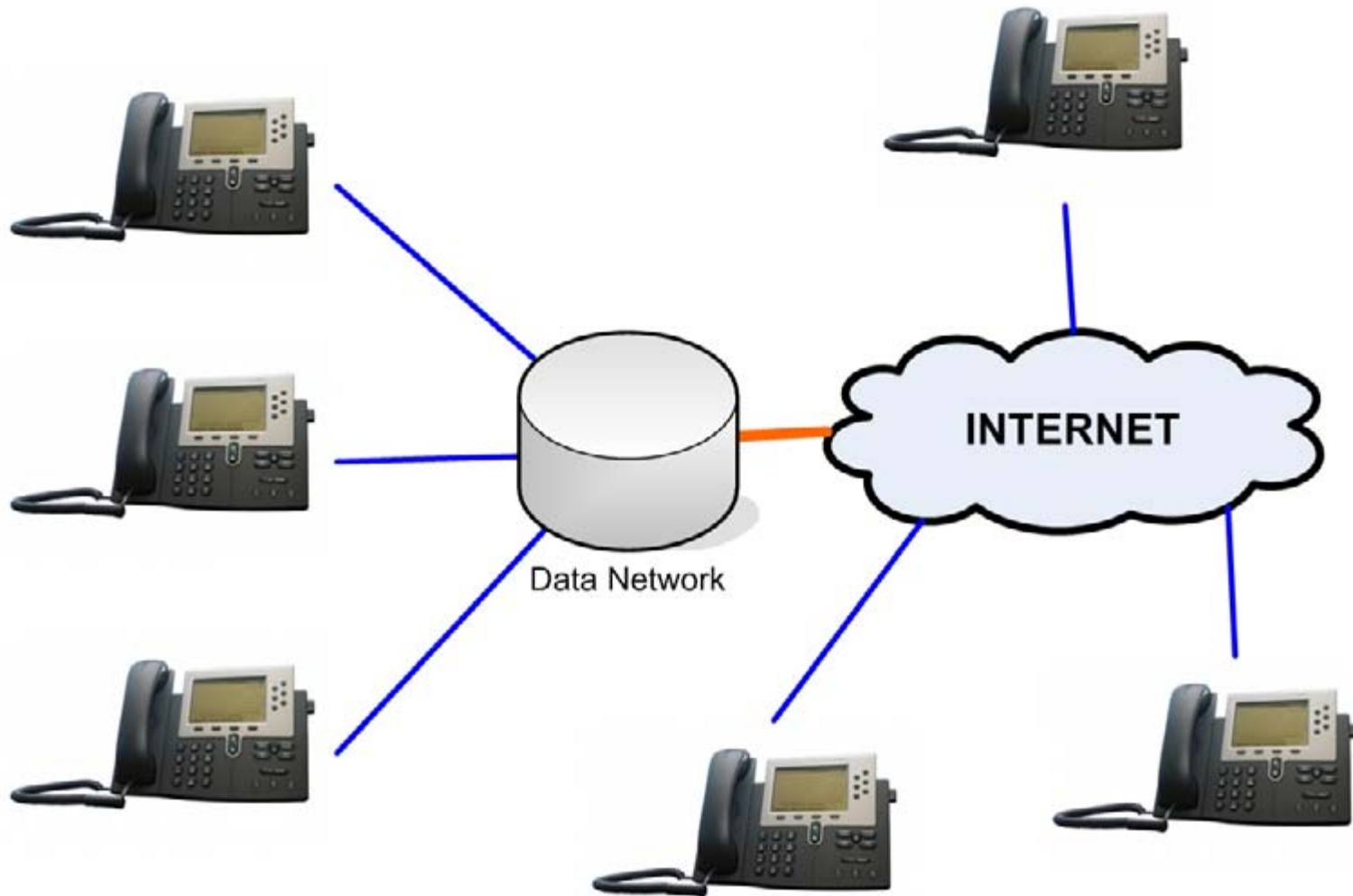
Saving Money – Growing The Company



- Initial ROI based on simple savings for A/P personnel
- Actual ROI
 - Less purchasing agents
 - More vendor discounts for early payment
 - Less personnel for T&M billing
 - Catching more discrepancies in vendor pricing

CASE STUDY: VoIP

Voice Over IP – Integrated Communications



Tablet PC's For The Contractor

The Improved Notepad

- Field2Base
- Forms
- Handwriting recognition
- Camera
- Sketch application



CASE STUDY: paperless@burnettco.com

Compliance, Quality & Service

- ❑ Standardization of Work Papers and Final Product
- ❑ Leverage limited staffing resources
- ❑ Lower cost of long term storage
- ❑ Providing better services through instant access to information
- ❑ Unexpected benefits not considered – we do not have to chase down files
- ❑ The acceptance curve for 1st & 2nd generation paperless applications

CASE STUDY: General Electric & e-Business

From Business Cards To Billions \$\$

- ❑ With over 400,000 employees and worldwide operations GE started their e-business and digitization strategy very slowly
- ❑ One of their first applications was consolidation of business card ordering across the company via a website in 2000.
- ❑ Cost of Web App: About \$20K
- ❑ Annual Savings: About \$500K
- ❑ From there they built another, larger series of online procurement and management applications
- ❑ They then stitched them together into digital dashboards for managers to make better decisions.
- ❑ Current: Billions of dollars worth of transactions and processes have been “digitized”

CASE STUDY: Tech. Project Mgmt. 101

Protecting Bridges & Tunnels After 9/11

B.A.S.E.

Bay Area Security Enhancement

CASE STUDY: Project Mgmt. Integration

Which Direction To Integrate?

1 PROJECT – 1 SYSTEM

All engineers, contractors and suppliers using a common system



1 COMPANY – 1 SYSTEM

All functions in the company including estimating, accounting, project management, fleet management and tools seamlessly integrated

Future technologies such as XML will help integrate both of these approaches – which one is better for your company today? There is no standard answer.

The Future: Post-Implementation

Little Details That Matter

- Documentation Of System
- Re-Assessing Vendors
- Maintenance
- Refine People Processes
- Planning Your Next Move...

The Future: Tinkering For Success

Little Experiments = Big Successes

”I know I am wasting 50% of my marketing budget ... my trouble is that I don't know which 50%.” - John Wannamaker



- Technology innovation works the same
- Find the technology enthusiasts and visionaries
- Give them room to “play” – watch the results

Q&A