

The background of the slide is the NASA logo, which consists of a blue circular field with a white swoosh and the word "NASA" in white. The logo is centered and serves as a backdrop for the text.

# Going Paperless

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“It is sobering to reflect on the extent to which the structure of our business process has been dictated by the limitations of the file folder.”

-Michael Hammer and James Champy  
*Reengineering Your Business*

# Introduction

- ***Going Paperless***: attempting to move away from traditional paper-based processes to achieve more efficiency in the workplace.

# Why this topic?

- NASA ATP project/ FCIP program
- Spread the word about simple paperless solutions

# Outline

- Objectives
- An example: Invoice Process
- Advantages and Issues
- Long Term Recommendations
- Other NASA Center Availability
- Conclusions
- Acknowledgements

## Objectives of Going Paperless

1. Meet requirements of Gov't Paperwork Elimination Act (U.S. agencies eliminate paper processes where feasible by October 2003)
2. Reduce cost (industry avg. for a single paper form is \$160/form; saw 90% cost reduction with paperless form -Bill Gates, *Business at the Speed of Thought*)
3. Reduce task completion time
4. Eliminate non-value added or unnecessary activity (i.e copying, printing, faxing, filing, walking)

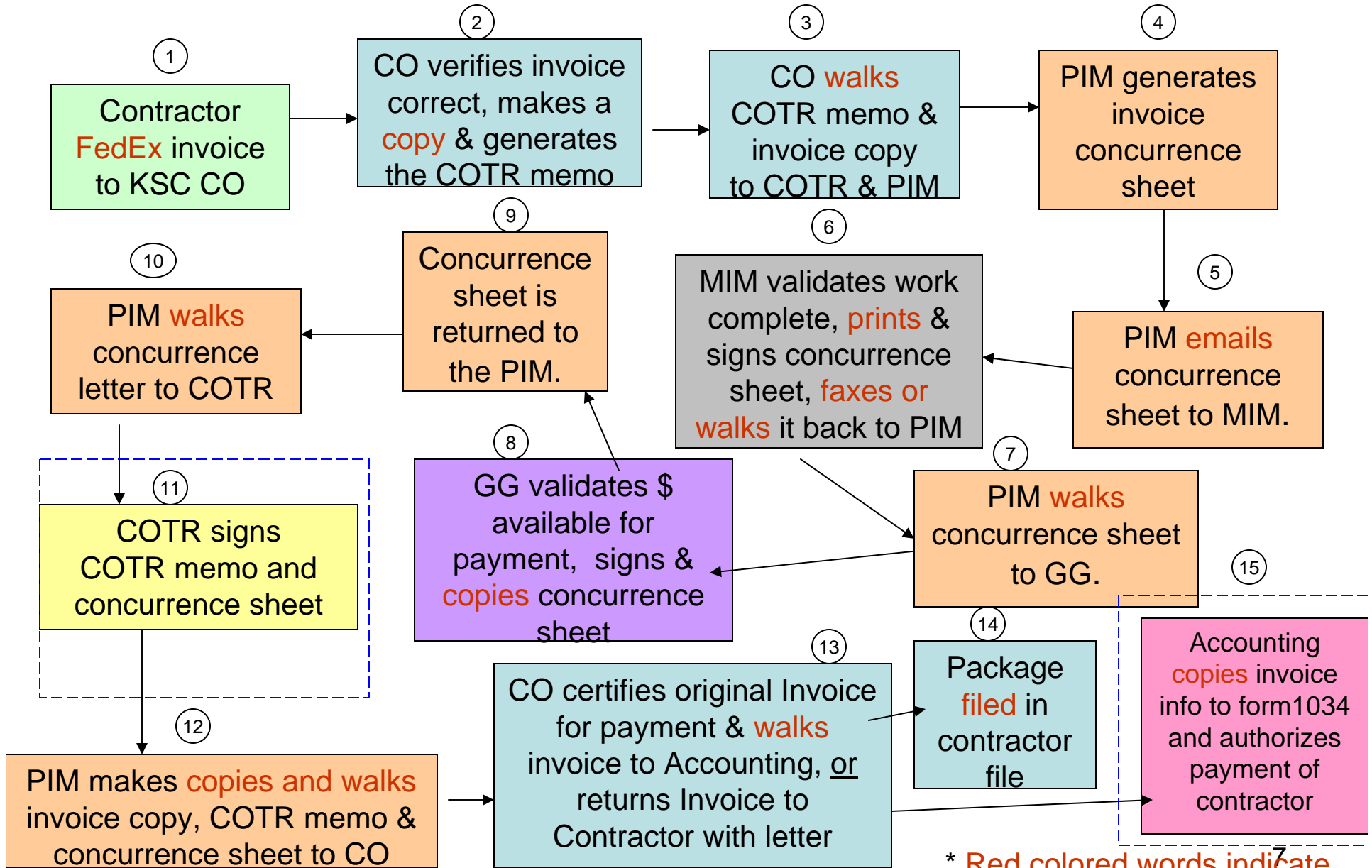
**=MORE EFFICIENT!**

# HOW???

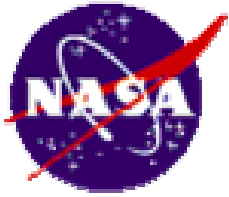
...Let's take a look at a KSC LSP application: the invoice process!



# Old Invoice Process



\* Red colored words indicate some non-value added activities.



# Old Invoice Process

	Cycle Time
Internal Process	1 to 57 days
Accounting Process	23 to 30 days
Total Process	24 to 87 days

\* Prompt Payment Act: government has 30 days from receipt of a proper invoice to pay.

# Old Invoice Process

Costs	Paper form
Printing, Storage, faxing	\$10
Labor	\$145
Shipping	\$45
Cost per form	<b>\$200</b>

- # Contract A invoices last year: 105
- 16% of Contract A invoices returned for rework resulting in additional cost to KSC
- Approximate cost to process invoices: \$ 24,360 this year for Contract A alone.

# New Invoice Process

1. What do the users want to see in the new process?
  - Minimal training required, user friendly
2. How can we speed up the process?
  - Look to improve the bottleneck
  - Eliminate redundant and non-value added steps
  - Make process electronic
3. How can we reduce cost?
  - paperless process
  - use existing technology so there are no additional costs
4. What are others doing?
  - DOD's implementation of Wide Area Workflow
5. Are there any legal implications?

# Where do we go from here?

## Gov't Paperwork Elimination Act

KSC has electronic forms server (Informed Filler); What about a signature? Do we need a "pen to paper" signature?

E-sign Bill: digital signatures are legally recognized for commercial/gov't use.

Use existing KSC Public Key Infrastructure (PKI)/Entrust; What about security?

Procurement Integrity Act: keep information secure

Encrypt the invoice using the same existing PKI/Entrust infrastructure



# New Invoice Process

- Use Informed Filler electronic forms encrypted and digitally signed using Entrust for invoice submittal.

Property	Paper Signatures	Digital Signatures
The signer can be electronically verified	No	Yes
It is possible to detect alterations to document	No	Yes
Can be used to signify a commitment to a contract	Yes	Yes
Recognized by legislation	Yes	Yes



# New Invoice Process

Property	Old Process	New Process
Non-value added steps	22	6
Redundant steps	2	0
Total internal time	17 days	2 days (anticipated)
Number of forms used	4	2
Total cost	\$200	\$56 (anticipated)

\*Total cost savings of \$144/invoice

# New Invoice Process Demo

- Outlook
- KSC forms

# Advantages of New Process

- Ease and convenience of use
- Faster process completion allowing more time for productive work
- Secure transactions
- Reduction in error
- Compatibility with other NASA centers
- No additional cost to implement

# Initial Issues with New Process

- Contractor access to form on KSC server
- Convincing users to take the necessary steps for use

# Long Term Recommendations

- Link to database to eliminate data entry and minimize human error
- Web-based invoice submittal system for use NASA-wide: similar to DoD WAWF.
- Implement paperless processes on all KSC forms
  - 775 KSC forms used 221,000 times last year: potential savings of \$35.3M per year if industry average of \$160 per form applied

# Possible other Applications

- Use Entrust for:
  1. Contract actions (Mods, etc)
  2. Source Evaluation Boards
  3. Sensitive budget information (POP)
  4. ITAR restricted information
- Use Informed Filler for:
  1. Any form that needs a signature or multiple signatures (Contractor 533's).
  2. Forms that change consistently

# Other NASA Center availability

- Entrust is available for digital signatures and/or encryption at every NASA center:  
<http://pki.nasa.gov/>
- Informed Filler forms management is available at every NASA center.
- Entrust and Informed Filler have the capability of being used together at ARC, DFRC, JSC, KSC, SSC.

# Conclusion



“Well, whoever jammed the copier left behind a picture of a winged dragon.”

# Acknowledgements

- Program Integration Office
- LSP Contracting Office
- LSP Resources Management Office
- Mission Management Office
- InDyne
- KSC/Boeing IT

# Questions??

The background of the slide features a large, semi-transparent NASA logo. The logo consists of a blue circular field with a white swoosh and the letters 'NASA' in white. A red diagonal line crosses the logo from the bottom-left to the top-right.

“Any time there is change, there is opportunity. So it is paramount that an organization get energized rather than paralyzed”.

*-Jack Welch,  
CEO General Electric*