

# **Electronic Communication The Next Level**

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- Electronic Communication Level One
- Why Move to the Next Level
  - Reasons and Goals
  - Benefits
- Technology Overview
  - Business Process Management
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- Where to Start
- Implementation Examples
- Pitfalls





#### Electronic Documents

- Agreements
- Directives...

## Network Based Storage

- Documents are stored on centralized storage media
- Accessible from whole organization
- Backed up by corporate mechanisms

#### E-mail

- Used for document routing and general communication
- Can be used with digital signatures
- Intranet and World Wide Web Pages



# Why Move to the Next Level

#### Reasons

- People are error prone
- Obtained data is unstructured
- Processes take longer than needed

#### Goals

- Automate work
- Eliminate routine tasks for employees
- Obey and enforce corporate policies
- Avoid invalid data
- Ensure data authenticity with the use of electronic signatures
- Provide higher level services



# Why Move to the Next Level

#### Benefits

- Fewer errors and mistakes
- No unnecessary pending processes
- Guaranteed data authenticity
- Fewer routine tasks
- More creative work for employees
- Quick and clean process execution





# Business Process Management

- Structured electronic forms
- Workflows
- Task management
- Electronic signatures
- Collaboration Intranet Portals
  - Based on
    - Documents
    - Projects
    - Teams
  - Cumulate assets associated with projects, documents or teams



# **Electronic Forms**

## Organization benefits

- Well Structured Data
  - Gathered data is easier to process
  - Can be automatically processed
- Data can be signed electronically
  - Signed data can be verified for authenticity

#### User benefits

- Instant Feedback
  - Users know about potential problems before submitting a form
  - Automatic completion and calculation
- Online Help
  - Users can access online help for explanations



# **Digital Signatures**

- Data authenticity verification
- Qualified Electronic Signature
  - Conforms to state laws
  - Can be used for inter organizational communication
  - Can be used by state agencies
  - More expensive implementation
- Standard Electronic Signature
  - Can be built on top of standard PKI infrastructures
  - Usually used for intra organizational communication
  - Easy and cheap to deploy



# Workflows

- Model Business Processes
- Manage Tasks
  - Create and assign tasks to employees
  - Eliminate unassigned tasks
  - Notify users about new and ended tasks
  - Escalate long running tasks
- Automate Processes
  - Automatically perform computer based tasks
  - Process form data
  - Enforce rules
  - Route documents
  - Gather signatures



# **Collaboration Portals**

- Common Place
- Organize Data and Documents
  - All electronic assets
  - Meetings
  - Tasks
- Quick and Easy to Navigate
  - Built on intranet technologies
  - Allows project dependent layout
  - Provides enhanced search capabilities
  - Links to external resources



# Where to Start

#### Automate Processes

- Choose electronic forms technology
- Choose processes that are easily implemented
- Model business processes for workflows
- Deploy workflows and forms
- Deploy PKI technology
  - Used for digital signatures
  - Create user certificates
- Deploy Qualified Electronic Signature Technology
- Deploy Collaborative Portals Technology



# Implementation Examples

# Application Processing

- Employs electronic forms, workflows, and digital signatures
- Routes application forms to responsible employees
- Gathers digital signatures

# Document Reviewing

- Manages document reviewing with collecting of comments
- Agreements, Directives, etc...
- Automatically places documents on portal after reviewing

# Data Collecting

- Employs electronic forms and workflows
- Stores data into databases
- Sends email notifications if needed





- Unstructured Forms
  - Forms must be easy to process
- Too Complicated Processes
  - Processes tend to block
  - Processes are too restrictive
  - Too many tasks
- Unnecessary Use of Qualified Electronic Signature
  - Expensive deployment
  - May be substituted with standard signatures
- Too Many Portals
  - Unnecessary number of portals
  - Users are overhauled





Questions and Answers

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