

# Integrating Imaging & Printing into the Digital Workplace

Shane Konsella

Senior Architect

HP Alliance Solutions & Applications



# Agenda

- Business Objective of Digital Workflow
- Overview of Digital Workflow Elements
- HP Printing and Imaging Accessibility and Integration Tools and Platforms
- HP Printing and Imaging Partnering Programs

# Business Objective of Digital Workflow

## Reduce Reliance on Paper in Key Business Processes



- streamline current document delivery and management and reduce manual processes
- improve accuracy
- effect cost-savings
- accommodate the diversity of network and devices being used
- integrate and/or leverage existing IT infrastructure

# Business Objective of Digital Workflow Requirements

- capture paper documents
- convert them to electronic format
- manage them
- flexibly store, retrieve, and archive them
- do all this securely
- enable increasing mobile workforce

# Business Objective of Digital Workflow

## Paper Documents Are Costly



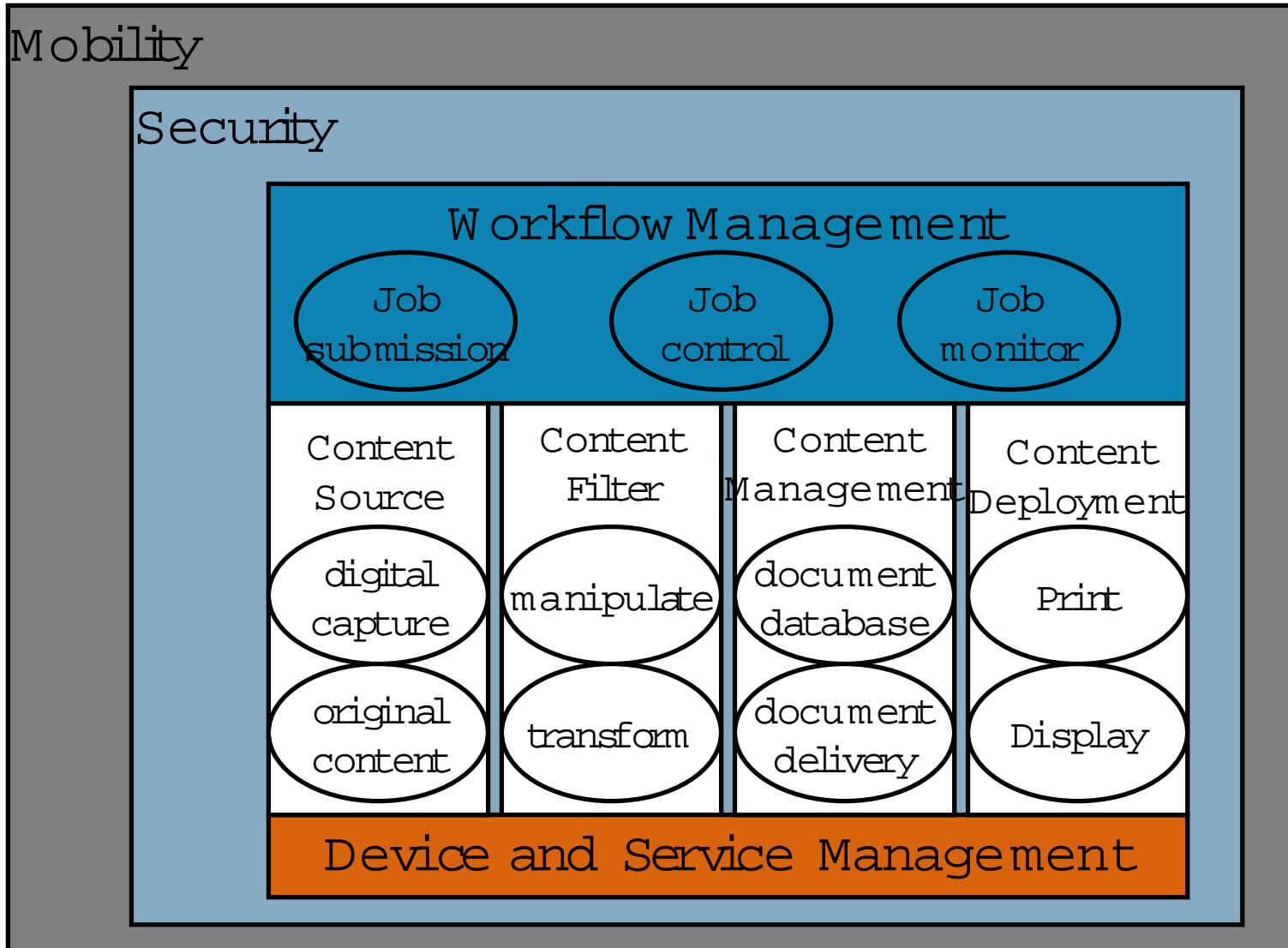
- cost of time spent on hardcopy file management estimated at US \$8,200 per person per year
- 7% of all files are lost
- 3% of all files are misfiled
- cost of time to locate lost documents US \$120 per document
- cost of time to recreate lost document US \$220 per document

*Source: GISTICS™ Incorporated*

# Agenda

- ✓ Business Objective of Digital Workflow
  
- Overview of Digital Workflow Elements
  
- HP Printing and Imaging Accessibility and Integration Tools and Platforms
  
- HP Printing and Imaging Partnering Programs

# Overview of Workflow Functionality



# Overview of Workflow Devices

- Document Servers
- Management Servers
- Email Servers
- Printers
- MFPs
- Digital Senders
- Desktops
- Laptops
- Tablet PCs
- Pocket PCs
- Smart Phones



# Agenda

- ✓ Business Objective of Digital Workflow
- ✓ Overview of Digital Workflow Elements
  - HP Printing and Imaging Accessibility and Integration Tools and Platforms
  - HP Printing and Imaging Partnering Programs

# HP Printing and Imaging Accessibility and Integration Tools and Platforms



- HP Autostore
- Digital Senders
- Multifunction Peripherals
- LaserJet Accessibility Platform
- Web Jetadmin
- HP Mobile Printing for the Pocket PC

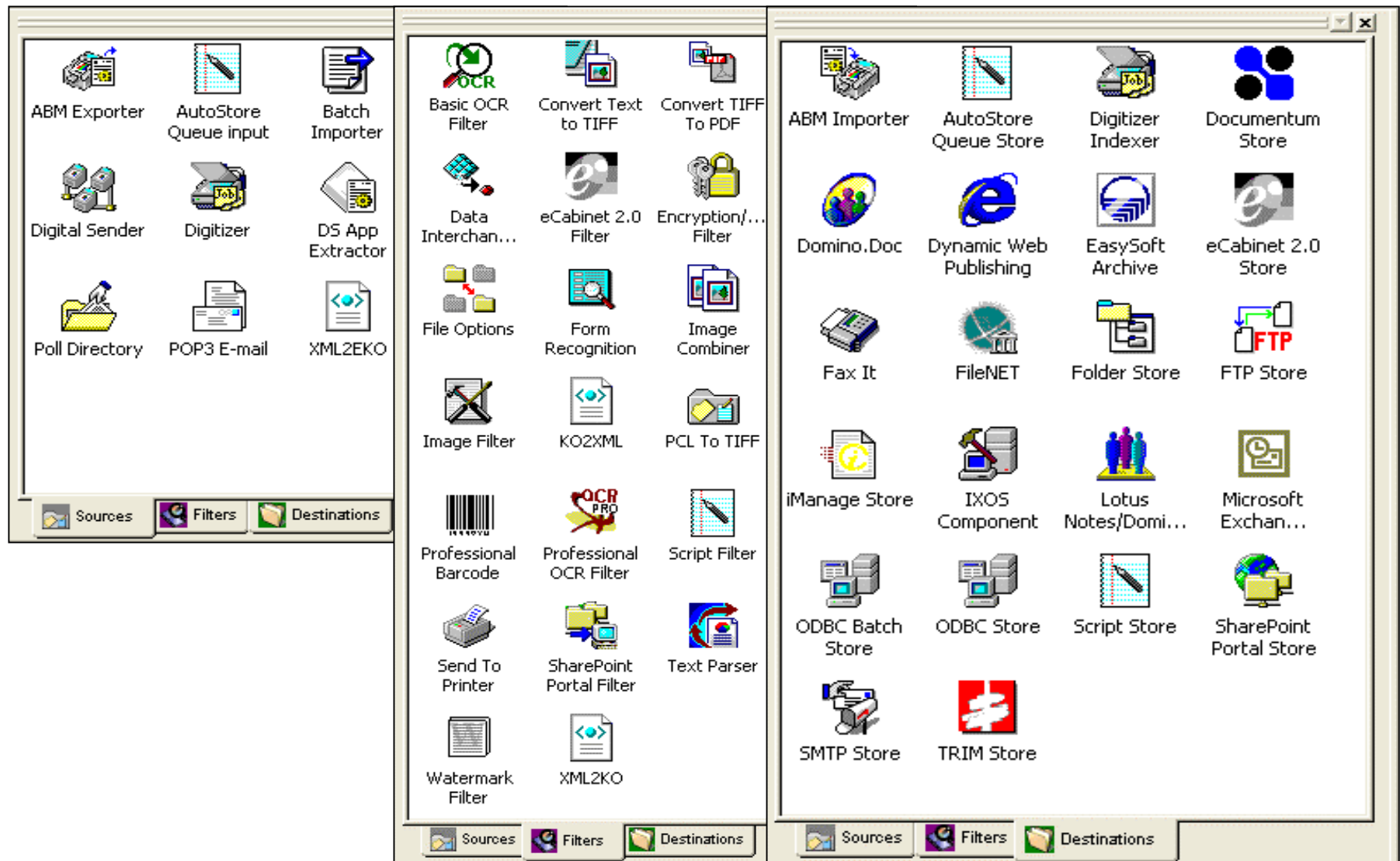
# Accessibility Tools and Platforms

## HP Autostore



- Windows-based Workflow Creation Solution
- Building blocks consist of:
  - Sources
  - Filters
  - Destinations
- A single COM Interface is used for all workflow components
- Components can be “dragged & dropped” and connected together to create a “workflow”.
- Each component has its own configurable properties
- Entire system is driven by an XML Job Ticket
- By using an SDK, 3<sup>rd</sup> Parties can develop new source, filter and destination plug-ins that integrate into system.

# HP Autostore Workflow Components



# Examples and Success Stories

## Workflow Integration: Inventory Locator Services



- One of the first e-marketplaces
  - brings together supplies of aviation parts with buyers
  
- ILS sells subscriptions to service
  - takes no financial involvement in transaction
  
- Due to FAA regulations, often supporting documentation must be exchanged previous to closing deal.
  - most vendors only have paper copy
  - this becomes major bottleneck

# Examples and Success Stories

## Workflow Integration: Inventory Locator Services



- Challenge
  - Real-time access to millions of heavily regulated documents
  - Enable real-time collaboration
  - Meet strict FAA regulations
  - Easy to Use
- Solution
  - MS SharePoint Portal Server and Team Services
  - Autostore Content Capture
  - HP Digital Sending Technology
- Result
  - Immediate access to millions of on-line documents
  - Real-time worldwide collaboration
  - Higher revenues due to higher efficiency for part ordering

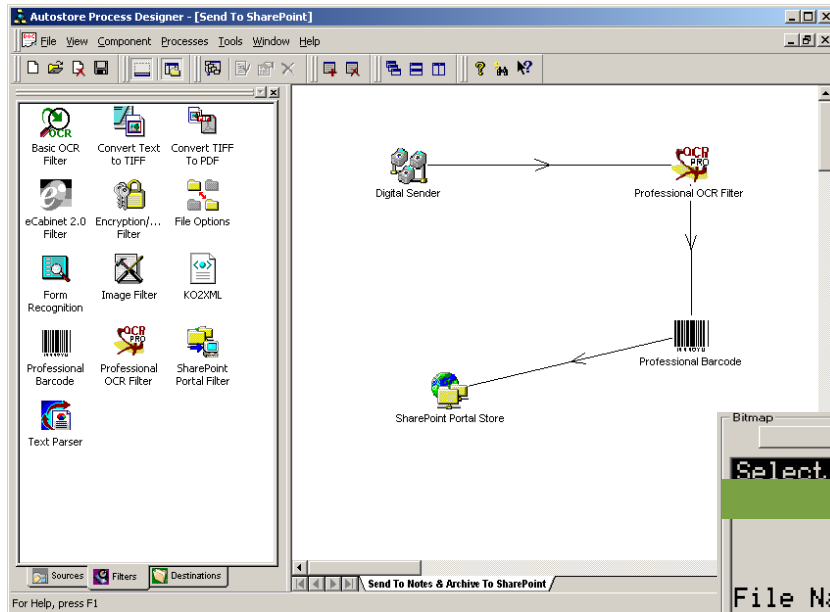
# Accessibility Tools and Platforms

## Digital Sending SDK

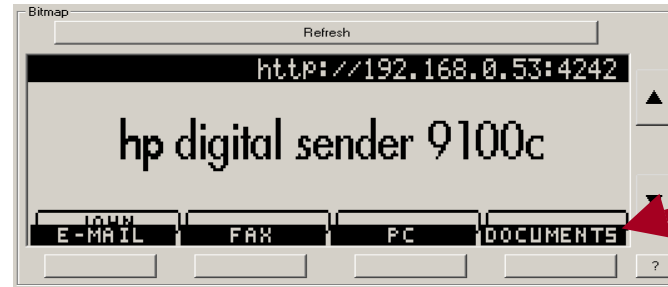


- Allows developer to customize HP Digital Sender front panel
  
- Developer can gather meta data about scan
  
- Meta data is sent via XML with document
  
- Meta data can be used to control workflow
  - database filing
  - trigger action

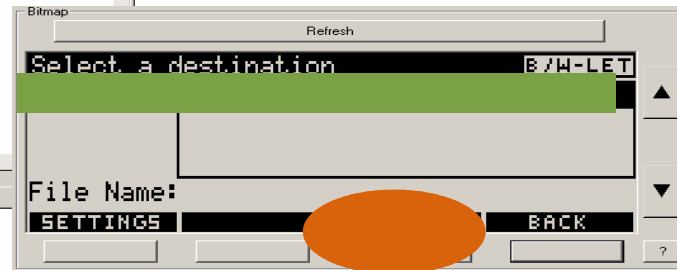
# Drag & Drop Workflow Creation using HP Autostore (Example: "Send to MS SharePoint Portal Server")



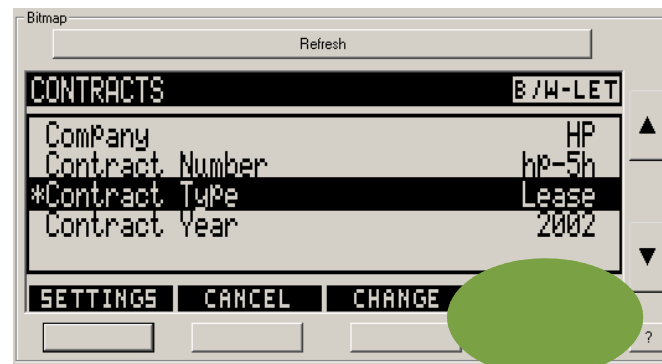
**Step 1:** An Administrator Creates A Server Based Workflow Using Autostore Process Designer and creates custom keys on Digital Sender Panel



**Step 2:** All end user sees is a new key on the Digital Sender (example: "Documents") and selects it



**Step 3:** The user selects the "Documents" key and is provided with additional selection based on SharePoint Portal Folder Structure (example: Contracts) and selects the "Continue" key



**Step 4:** The user is prompted to fill in related forms (i.e. Company, Contract Number, Contract Type, Contract Year, ...etc) and selects the "Finish" button. Documents will be routed based on the designed workflow



# Examples and Success Stories

## Digital Capture: Roadway Express



- Initial process
  1. bill of lading faxed to central locations
  2. staff enters data into order system
  3. bill of lading scanned into system
  
- Process is expensive
  - one office alone was spending US \$2000 per month on fax toner and paper
  
- Process is error-prone
  - fax quality is hard to read
  - data entry is susceptible to human error

# Examples and Success Stories

## Digital Capture: Roadway Express

- Challenge
  - Generate high quality image capture
  - Don't overburden email system
  - Make it "easier-than-fax"
  - Recognize key parts of form
- Solution
  - HP Digital Sending Technology
  - HP Autostore with OCR and bar code reading
- Result
  - Reduced processing time
  - Reduced errors
  - Reduced consumables costs
  - Higher efficiency
  - Higher quality service

# Accessibility Tools and Platforms

## HP Multi-Function Peripherals



- Network connected peripheral that enables many function that may include:
  - printing
  - copying
  - scanning
  - digital sending
  - document storage
  - front-panel workflow initiation

# Examples and Success Stories

## Forms Automation: Medical Office

### ■ Challenge

- Increase efficiency of check-in process
  - increase patient satisfaction
  - increase staff time utilization

### ■ Possible Solution

- HP MFP
  - patient retrievable forms from front panel menu
  - digital send to staff in-box
  - staff approval and file

### ■ Expected Results

- Patients more likely to update records
- Staff has more time to spend with quality interactions

# Accessibility Tools and Platforms

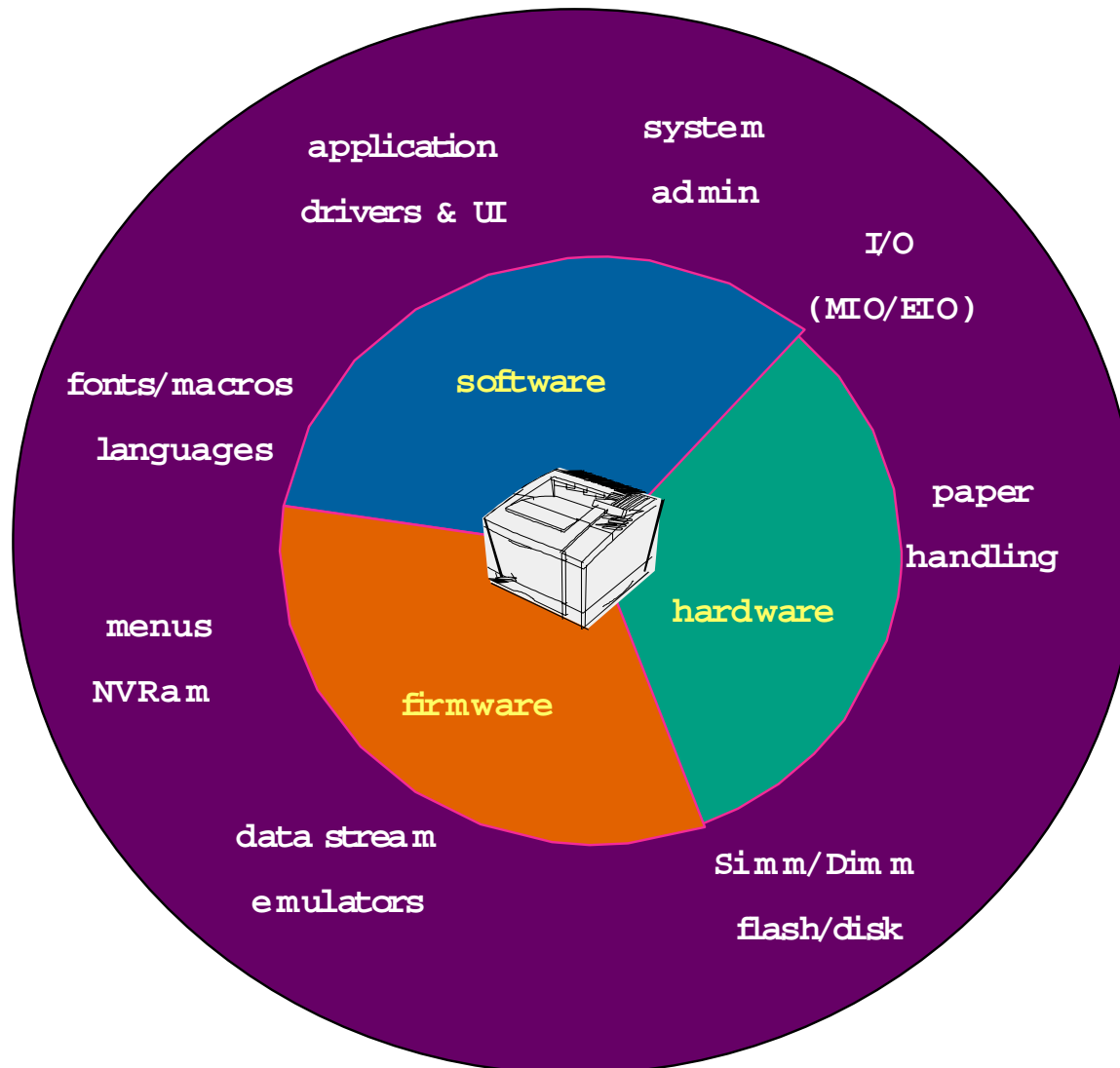
## LaserJet Accessibility Architecture



- Transforming HP printers and MFPs from peripherals to integrated pieces of the digital workflow
  
- Allows developers to add or modify:
  - data transformations
  - security
  - paper handling
  - manageability
  - user interaction
  - connectivity

# Accessibility Tools and Platforms

## LaserJet Accessibility Architecture



# Accessibility Tools and Platforms

## Chai

- Chai consists of 3 pieces
  - ChaiVM: a platform for running Java code
  - ChaiServer: an application server
  - ChaiLoader: manages ChaiServices
  
- Chai SDK
  - Documentation: Javadocs, Getting Started Guide, examples
  - Simulator
  - Package libraries
  - Tools: stubber, checker, ChaiWatchPort, EZLoader
  
- [www.hpdevelopersolutions.com](http://www.hpdevelopersolutions.com)
  - Obtain SDKs
  - Dynamic JNI
  - Additional examples
  - FAQ
  - Base firmware
  - Support

# Examples and Success Stories

## Secure Printing: Grand Pacific Resorts



- Accounting department needs to generate more than 300 end of month reports
- Reports are confidential
- Reports usually run over night
- MIS staff must “stand guard” on the printer during overtime hours to protect confidentiality



# Examples and Success Stories

## Secure Printing: Grand Pacific Resorts



### ■ Challenge

- enable secure printing of reports without requiring MIS staff overtime

### ■ Solution

- JetCAPS partner SDExpress secure remote printing
- HP LaserJet printer

### ■ Result

- Print jobs are queued at printer overnight and printed once staff arrives at normal working hours
- Print jobs are sent to remote accounting printers entirely removing MIS staff from the workflow

# Accessibility Tools and Platforms

## Web Jetadmin



- Adds the ability to centrally manage printing and imaging devices
  - Check status
  - Update device
  - Monitor device
  - Set alerts to eliminate down time due to supplies
  
- Free tool
  
- Multi-vendor support

# Accessibility Tools and Platforms

## Web Jetadmin SDK



- Provides printer and copier manufacturers with tools to develop plug-ins so that administrators can manage their devices using HP Web Jetadmin
- SDK comes with tools, documentation, certification program, and distribution assistance
- This is enabling a single tool to manage a diverse network of devices
- The first vendor to complete a set of plug-ins is Ricoh on a select set of devices including Aficio, Lanier, Savin, and Gestetner series

# Examples and Success Stories

## Device Management: Investment Company



### ■ Challenge

- A major investment firm needed to deploy print-on-demand station in over 400 branches around the world
- Stations must be up 100% of the time
- IT costs must be minimized

### ■ Solution

- HP WebJet Admin

### ■ Results

- Alerts allowed proactive action
- Remote management kept IT cost low

# Accessibility Tools and Platforms

## HP Mobile Printing SDK for Pocket PC



- Printing can be added with one method call
- SDK takes care of all end user interaction screens required to print
- SDK provides print job monitoring functionality with no additional work

# Accessibility Tools and Platforms

## HP Mobile Printing SDK for Pocket PC



- Compatible with HP LaserJet and DeskJet printers and select non-HP printers
- Wide variety of supported I/Os (Bluetooth, IR, 802.11b)
- Control over print job settings
- Print job management
- Bluetooth printer discovery, configuration & selection

# Examples and Success Stories

## Mobility: Furniture Delivery Truck



- Challenge
  - Automate inventory tracking
  - Maintain customer expectation of receipt
  
- Possible Solution
  - HP iPAQ
  - HP DeskJet 450 mobile printer
  
- Expected Results
  - Reduce lost inventory
  - Reduce customer extra billing
  - Reduce staff needed for data entry

# HP Printing and Imaging Accessibility and Integration Tools and Platforms



- Autostore
- Digital Sending
- Multifunction Peripherals
  - LaserJet Accessibility Platform
  - WebJet Admin
  - HP Mobile Printing for the Pocket PC



# Pulling it all Together

## Mobile Secure Digital Lab Results

Step 1: Medical tests are digital sent to database

Step 2: Doctor is notified of results and prints them

Step 3: Doctor releases print job with finger print

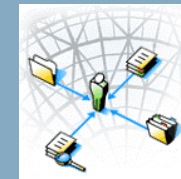
Step 0: IT is managing all the devices

### WebJet Admin Managing the Devices

HP Digital  
Sending  
Document  
Capture

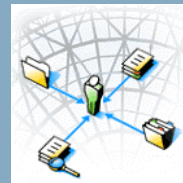


HP Autostore  
Document  
Processing &  
Distribution



Microsoft®  
SharePoint  
Portal Server

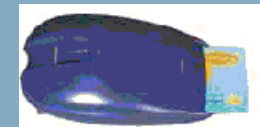
Integration done using digital sending SDK



Microsoft®  
SharePoint  
Portal  
Server



Integration done using HP Mobile Printing SDK and Chai



Integration done with Chai

# Agenda

- ✓ Business Objective of Digital Workflow
- ✓ Overview of Digital Workflow Elements
- ✓ HP Printing and Imaging Accessibility and Integration Tools and Platforms
- HP Printing and Imaging Partnering Programs

# Partnering Programs



- HP Imaging and Printing Solution Provider Program
  - developer kits, technical support, equipment loans
  - Global Solutions Catalog
  
- WebJet Admin Developer Program
  - works with device manufactures to create plug-ins to WebJet Admin enable their devices
  
- JetCAPS
  - handpicked partners from around the world who create, integrate, and deliver printing solutions
  
- HP Dev Resource Central
  - tools and information for integrating into HP OpenCall or HP OpenView products

# Agenda

- ✓ Business Objective of Digital Workflow
- ✓ Overview of Digital Workflow Elements
- ✓ HP Printing and Imaging Accessibility and Integration Tools and Platforms
- ✓ HP Printing and Imaging Partnering Programs

# Summary

- Replacing reliance on paper workflow with digital workflow is essential for business efficiency
- HP and its partners offer the breadth of solutions to enable successful, cost-effective, and easy-to-use business process transformations
- HP has created a strong partner program to enable and recruit the leaders in networks, software, and services.

# For More Information

- Imaging and Printing Solutions Provider Program
  - [www.hp.com/go/solutions](http://www.hp.com/go/solutions)
- Mobile Printing Tools
  - [www.hpdevelopersolutions.com/mobile](http://www.hpdevelopersolutions.com/mobile)
- WebJet Admin
  - [www.wjadeveloperprograms.com](http://www.wjadeveloperprograms.com)
- JetCAPS Program
  - [www.jetcaps.com](http://www.jetcaps.com)
- Imaging and Printing Products
  - [www.hp.com/go/printingandimaging](http://www.hp.com/go/printingandimaging)
- Content Management
  - [www.hp.com/go/contentmanagement](http://www.hp.com/go/contentmanagement)
- Total Print Management
  - [www.hp.com/go/tpm](http://www.hp.com/go/tpm)



# HP WORLD 2003

Solutions and Technology Conference & Expo

Interex, Encompass and HP bring you a powerful new HP World.

