DocSlide

INFO TECHNOLOGY SUPPLY LTD.

DocSlide Print Auditing Service -Microsoft Windows Installation and configuration Procedure 2.0.0.



ITS Product

Guides

Contents

Contents	2
General information about DocSlide Print Auditing Service	3
Requirements	3
Operating System	3
Components	3
Installation Procedure	4
Installation of the Microsoft Net 6.0 hosting bundle	4
Installation of the Ghost trap	4
Installation of the DocSlide Print Audit Service	5
Configuration of DocSlide Print Auditing with permanent blocking.	8
Setting up printing	8
DocSlide Print Audit job configuration with permanent blocking of print jobs with keyword	S.
	9
Configuration of DocSlide Print Auditing with offline silent monitoring1	4
Setting up printing1	4
DocSlide Print Audit job configuration with offline silent monitoring of print jobs with	
keywords1	5

General information about DocSlide Print Auditing Service

DocSlide Print Auditing Service is helping us to convert all PS or PCL jobs to Tiff, also is creating XML file with all metadata which we need to get for Print Auditing process in DocSlide and we have still original spool file .spl. We are storing this in folder where DocSlide OCR processor will take tiff and convert to PDF searchable. PDF and xml, .spl will stay in this folder. DocSlide will process it with print audit processor. When we do not find any keywords we will send original. spl to configure printer or print queue. When we find forbidden keywords we will send pdf to admin, send notification to user, and delete original print job. In xml file we have all metadata we need in this process.

		11511	
- «	DEN	10 > OCR > DocSlidePrintAuditServiceOut	√ Č
Ŕ	^	Name	Date modified
		O0027.pdf	12/04/2022 19:29
s	а.	00027.spl	12/04/2022 19:29
		🔮 00027.xml	12/04/2022 19:29
te			

Requirements

Operating System

- 1. Windows 10, Windows Server 2012 or newer
- 2. 40 GB of free hard disc space
- 3. 4 GB of RAM

Components

1. Download and install Net 5.0 hosting bundle (required by Print auditing) from https://dotnet.microsoft.com/en-us/download/dotnet/thank-you/runtime-aspnetcore-6.0.22-windows-hosting-bundle-installer

- 2. Working DocSlide 2.6.1.0 installation,
- 3. Working Umango installation,
- 4. PaperCut Ghost Trap installation (<u>https://github.com/PaperCutSoftware/GhostTrap</u>)
- 5. Link for Ghost trap download:

https://cdn1.papercut.com/files/open-source/ghost-trap/ghost-trap-installer-1.3.9.27.exe

Installation Procedure Installation of the Microsoft Net 6.0 hosting bundle

Run the installation binary as administrator and follow the installer's instructions.

Installation of the Ghost trap

1. Run Ghost Trap installer as administrator and follow instructions





Installation of the DocSlide Print Audit Service

1. Unzip the installation package and rename it to ex. DocSlidePrintAuditing



2. Copy the DocSlidePrintAuditing folder to the local hard drive.



3. Edit file appsettings.json:

		> Th	nis PC > Local Disk (C:) > DocSlidePrintAuditing	9
			Name	Date mod
			问 appsettings.json	12/04/20
		ж	🚳 e_sqlite3.dll	17/08/20
		Å	💿 install.cmd	21/03/20
		A.	iTS.PaperCut.PrintAuditing.Service.exe	05/04/20
		*	iTS.PaperCut.PrintAuditing.Service.pdb	05/04/20
			uninstall.cmd	21/03/20
}, "ConvertS	0 0 poolS1	arameter, adjust use <i>pcl6.exe</i> , for F Set Conversion (executable according to dr PS gsc-trapped.exe, Dutput File Extension to:	tiff
"Conv "Conv "Conv },	ersion ersion ersion	nProgramPath": "C:/Progr nProgramArgs": "-dNOPAU nOutputFileExtension": '	ram Files/GhostTrap/bin/gsc-trap 5E -dBATCH -sDEVICE=tiff24nc -sC 'tiff"	ped.exe", ompression=lzw -r300 -sOutputFile=[output] [input]",

 Adjust Output folder which will be input for DocSlide OCR processor workflow for ex. C:\DocSlide\DEMO\OCR\DocSlidePrintAuditServiceOut

```
},
"CreateJobSummaryStepOptions": {
    "OutputFolderPath": "C:/DocSlide/DEMO/OCR/DocSlidePrintAuditServiceOut/"
},
```

4. You need to user same license file which you are using for DocSlide and place it in DocSlide Print Audit Service folder before starting service.

Share	View	« Lo	cal Disk (C:) > DocSlidePrintAuditing >	~ Ū	
> This	PC > Local Disk (C:) > DocSlide >	 ✓ Ö A 	Name	~	D
	DEMO	01/(logs		13
(C:)	store	14/0	store 1e68d0b2-8b8a-49c0-a222-606dbc3f819a.license		22
s (\\VE	1e68d0b2-8b8a-49c0-a222-606dbc3f819a.license appsettings.Development.json	22/'irt	appsettings.json database.db		12 12

 If your server language is different than English you need to find our what is status of safe spool print jobs. To that you need download this tool. <u>https://www.microsoft.com/en-us/download/details.aspx?id=8572</u> Unzip it. Run as administrator WMICodeCreator.exe, select classes to Win32_PrintJob and properties to JobStatus like in picture and press Execute Code. Copy local language status text.

📙 🔄 = 🗧 WMICodeCreator Ma — 🗆 X	💀 WMI Code Creator — 🗆 🗙
File Home Share View Application Tools 🗸 🕐	File Code Language Target Computer Help
∠ → × ▲ 🛛 « Dow → WMCode → + ði Soarch W (Query for data from a WMI class Execute a method Receive an event Browse the namespaces on this computer
 Commonstration Commonstratin Commonstratin Commonstratin	Query for data from & WMI class Execute a method Receive an event Bowse the namespaces on this computer Namespace: root CIMV2
Videos Local Disk (C:) CD Drive (D:) Virt Downloads (\VE CD	Open code in Notepad Execute Code

You need to put this to appsettings.json file, default is English text, overwrite this with your local language text and save json file.

F),),
F	"SpoolerJobOptions": { "PrintedStatusName": "Printed"
-	}
L}	

6. In the DocSlide folder you will find install.cmd, run this as administrator.

Name appsettingsjoon Gequite3.dll Sinstal.cmd TiSPaperCut.PrintAuditing Distall.cmd	Date modified 12/04/2022 10:00 17/08/2020 14:38 Open Edit Print W Run as administrator Share	Type JSON F Applica cc Fil or	Do you want to allow the following changes to this computer? Program name: Windows Comm Verified publisher: Microsoft Wind	g program to make hand Processor ows
 install.cmd iTS.PaperCut.PrintAuditing iTS.PaperCut.PrintAuditing uninstall.cmd 	Open Edit Print ♥ Run as administrator ☞ Share	or ca Fil	Program name: Windows Comm Verified publisher: Microsoft Wind	nand Processor ows
1	🖻 Share			
	Restore previous versions		Show details	Yes No
	Cut Copy		<u>Change wh</u>	en these notifications ap
Adminis Adminis Install [SC] Cr	Copy Vindows\System32\c trative permi trative permi ing service eateService S	md.exe ssions ssions UCCESS	required. Detecting permis confirmed.	ssions

7. Start the iTS PrintAuditing Service

J

-				
	Name	Description	Status	Startup
	🌼 IP Helper	Provides tu	Running	Automa
	🎑 IPsec Policy Agent	Internet Pro	Running	Manual
	🎑 iTS EasyDocPrint		Running	Automa
	WITCH IN A DOLLAR			
	Main's PrintAuditing Service		Running	Automa
	KDC Proxy Server service (K	KDC Proxy S	Running	Automa Manual
	KDC Proxy Server service (K KtmRm for Distributed Tran	KDC Proxy S Coordinates	Running	Automa Manual Manual
	KDC Proxy Server service (K KtmRm for Distributed Tran	KDC Proxy S Coordinates Creates a N	Running	Automa Manual Manual Disabled
	KDC Proxy Server service (K KtmRm for Distributed Tran Link-Layer Topology Discov	KDC Proxy S Coordinates Creates a N Core Windo	Running	Automa Manual Manual Disableo Automa
	KDC Proxy Server service (K KtmRm for Distributed Tran Link-Layer Topology Discov Local Session Manager	KDC Proxy S Coordinates Creates a N Core Windo Provides a	Running Running Running	Automa Manual Manual Disableo Automa Automa

Configuration of DocSlide Print Auditing with permanent blocking.

Setting up printing

- 1. Install **PaperCut LPD service**. LDP can be install from this PaperCut folder: *C:\PaperCut MF\providers\Ipd\win\pc-Ipd-installer.exe*
- If you want to audit all print jobs and permanently block receiving them by user you need to create shared queue which will work as share queue for all users, ex. named Audit on port NULL and with selected option Keep printed documents on Advanced tab.

	Printer Name	Audit Properties ×	📾 Audit Properties	×
J (lo:	Microsoft Pri	General Sharing Ports Advanced Color Management Security Device Settings	General Sharing Ports Advanced Color Management Security Device S	iettings
	Microsoft PS	Aways available Available from 00:00 To 00:00	S Audit	
	SpoolPrinter	Priority: 1	Print to the following port(s). Documents will print to the first free	_
	I 📰 Virtual Queue	Driver: PaperCut Global PostScript V New Driver	checked port. Port Description Printer	^
		Spool print documents so program finishes printing faster Start printing after last page is spooled Start printing impredictably	10.10.1 Standard TCP/IP Port Microsoft PS Class Driver Paper Standard TCP/IP Port Audit PAPER PaperCut TCP/IP Port Test Printer R00EPE PaperCut TCP/IP Port Test Printer	
		O Print directly to the printer	PORTP Local Port Microsoft XPS Document Write Inul Local Port VirtualQueue, SpoolPrinter	•
		Hold mismatched documents	I null Local Port SmartSchool	~
		Print spooled documents first Keep printed documents	Add Port Delete Port Configure Port.	
		Enable advanced printing features Printing Defaults Print Processor Separator Page	Enable bidirectional support	
		OK Cancel Apply	OK Cancel /	Apply

Exclude it from PaperCut print provider by adding it to IgnoredPrinters list: open the file
[app_dir]\providers\print\win\print-provider.conf in a text editor such as Notepad. Locate
the line IgnorePrinters= and enter the full name of the printer on the right-hand-side of he
equals line. For example: IgnorePrinters=Audit

4. Print Audit Service is going to watch all queues with **Keep printed documents** flag and produce pdf and xml file and leave original spool file. In xml we have all metadata for this auditing process. All those 3 files will be store in folder where Umango has a job to do.

	annan e				
	K DEM	O > OCR >	DocSlidePrintAuditServiceOut	ت ~	
	* ^	Name	^	Date modified	
		🧿 00027.p	df	12/04/2022 19:29	
	s	00027.s	pl	12/04/2022 19:29	
		🔮 00027.xi	ml	12/04/2022 19:29	
	te				
xml vers? AuditJob? Files<	sion="1 > 5>	.0"?>			
<	File>[c	onverte	ed-file-path] <th>e></th>	e>	
<	File>[j	ob-spoo	ol-file-path] <td>e></td>	e>	
<td>es></td> <th></th> <td></td> <td></td>	es>				
<0wner	r>[job-	owner]<	(/Owner>		
<docur< th=""><th>mentNam</th><th>e>[job-</th><th>-document-name]<th>ocumentName≻</th></th></docur<>	mentNam	e>[job-	-document-name] <th>ocumentName≻</th>	ocumentName≻	
<print< th=""><td colspan="5"><printername>[job-printer-name]</printername></td></print<>	<printername>[job-printer-name]</printername>				
<td>>></td> <th></th> <td></td> <td></td>	>>				

DocSlide Print Audit job configuration with permanent blocking of print jobs with keywords.

1. Create a new destination which will be LPR printer.

We need to create LPR printer destination in DocSlide. We will use in this example **VirtualQueue** which is virtual input queue for find me PaperCut feature. We will send here all jobs where we will not find forbidden keywords.

Printer Name	🖶 VirtualQueue Properties	× Printer List
In Audit Microsoft PF Class Driver Microsoft PS Class Driver Microsoft PS Document V In Standschool SpociPhinter SpociPhinter Class Driver Microsoft Document Microsoft Document Microsoft Document Microsoft Driver Microsoft Document Microsoft	General Sharing Pots Advanced Color Management Security Device Settin	Printer List Jobs Pending Release Notification Options Charts Refunds Filter off Q Quick Find
		PRINTER †
	Model: PaperCut Global PostScript	[Template printer]
	Features Color: Yes Paper available:	🖶 win-r7vd4em19gu\Microsoft PS Class Driver
	Double-sided: Yes A4 ^	win-r7vd4em19gu\SmartSchool (virtual)
	Speed: 14 ppm Maximum resolution: 600 dpi	🖶 win-r7vd4em19gu\Test Printer
	Preferences Print Test Page	(win-r7vd4em19gu\VirtualQueue (virtual)
	OK Cancel Apply	Export/Print 🚾 🧱 🗐

Edit destination	
Destination type: tolpr	
Destination name	
Print Audited Printer	
Lpr server or host name	
127.0.0.1 +	~
LPR Queue name	
VirtualQueue +	~
Port	
515	
Job owner	
[user_login]	~
Document name	
[DocumentName] +	~
Allowed file extensions which are accepted by LPR server (with dot, expdf), confirm with [ENTER	Ŋ
_spi ×	
Save Cancel	

٠	Destination name	-	Name of destination
٠	LPR server or host name	-	ip address or host name of LPR printer
	or shared queue		
٠	LPR Queue name	-	Name of LPR queue
•	Port	-	LPR port, in most cases 515
•	.loh owner	_	[user_login] – we should user this

- Job owner [user_login] we should user this metadata
- Document name [DocumentName] we should user this metadata
- Allowed files extensions which are accepted by LPR server we should use .spl for print auditing case

2. Creating DocSlide OCR processor

Here we are creating an OCR processor which will be added to flow. This OCR processor will take Tiff file created by iTS Print Audit Service and convert it to PDF searchable. DocSlide audit processor needs just PDF searchable.

Editing processor	
A This processor only accepts tiff files (extensions .tif and .tiff)	
✓ Save × Cancel	

3. Create Print Auditing processor with print blocking.

Here we are creating an audit processor which will be added to flow. We want to search for some forbidden keywords to audit all documents processed by this flow. In this processor we want to block the user to print job after found keywords. We will mark keywords in pdf create and send them to admin, we will notify users that they will not print this job.

Editing processor			
Print Audit (auditpdf)			
A Make sure that files intended to be audited are Searchable PDFs			
Searched keywords in documents, place each sentence in new line, in case of Regula Expressions prefix them with "regex:"			
Features XML			
Mark keywords in audit document 🎱			
Block sending file to user 9			
Notify user that his file was blocked			
Notify mail sender			
[user_email]			
Notify mail recipient			
[user_email] + 🗸			
Notify mail subject			
Print Audit Notification			
Notify mail body			
You can not Print this print job			

V PDF files in jobs are only metadata ᠑			
Audit mail sender address			
[user_email]	· 🔽		
Audit mail recipient address			
[user_email]	· 🔽		
Audit mail subject			
Print Audit Job	· 🔽		
Audit mail body			
This document cointains sensitive key word: [words]			
	// + ~		
✓ Save × Cancel			

- Destination name Name of destination
- Searched keywords in documents, place each sentence in new line, in case of Regula Expressions prefix them with "regex:" - Keywords you want to search in docs, you can use regex
 Mark keywords in audit document - Marking of keyword in
- document send to admin Block sending file to user Blocking of sending job to user • when we find keywords Notify user that his file was blocked -This setting when you want notify • user Notify mail sender [user_login] – we should user this • metadata Notify mail recipient • [user_login] – we should user this metadata Notify mail subject Email subject Notify mail body Email body PDF files in jobs are only metadata we want • pdfs to be just metadata files • Audit mail sender address [user_login] – we should user this metadata • Audit mail recipient address [user_login] – we should user this metadata Audit mail subject Email subject - Audit mail body Email body -

4. Create Print Auditing flow.

We need to create xml folder flow, where DocSlide will get all files from iTS Print Audit Service. It should be an original spool file, xml with metada and tiff file. In xml we have all metadata to process this auditing, including path to original spool files, name of printer, user login and document name. We need of course to add to this flow in the first position OCR processor which will produce pdf searchable and just under auditing processor which will audit this document. In the end we need to choose lpr printer destination.

Editing flow Print Audit	Details of selected destination:
0	Print Audit Papercut Virtual Queue
Folder path	Scan files will be printed.
C:\DocSlide\DEMO\OCR\DocSlidePrin	Delivery will send to print all files with extension/s
Add wrapping root element •	.spi • To LPD server: 127.0.0.1:515/VirtualQueue
Additional file patterns, confirm with [ENTER] •	 Setting owner of the job to be [user_login]
XPath to owner login	
/AuditJob/Owner	
XPath to filenames	
/AuditJob/Files/File +	
Additional metadata: DocumentName : /AuditJob/DocumentName	
PrinterName : /AuditJob/PrinterName	
Add metadata to be extracted from XML:	
Processors	
Available processors	
Merge OCR	
Image to Tiff Print Audit	
Word to PDFs	
PDF to Tiff	

٠	Destination name	-	Name of destination
•	Folder path	-	this folder where we need to get pdf
	searchable with xml from Un	nango	
	C:\DocSlide\DEMO\OCR\De	ocSlidePri	intAuditIn
•	Additional file patterns, confi	rm with [EN	NTER] - we want to get just pdfs
•	XPath to owner login	-	/AuditJob/Owner – we will take user
	info from xml		
•	XPath to filenames	-	/AuditJob/Files/File – we will take file
	name from xml		
•	Additional metadata:	-	we can configure here xml metadata

•	DocumentName document name from xml	-	/AuditJob/DocumentName – this is
•	PrinterName	-	/AuditJob/PrinterName – this is printer
•	Add metadata to be extracted metadata	from XML	: - We can add here more
•	Processors Processor	-	here we need to choose Print Audit
•	Deliver to Destination	-	here we need to create LPR Printer

Configuration of DocSlide Print Auditing with offline silent monitoring.

Setting up printing

- 1. Install **PaperCut LPD service**. LDP can be install from this PaperCut folder: *C:\PaperCut MF\providers\Ipd\win\pc-lpd-installer.exe*
- 2. If you want to do just silent monitoring of all print Jobs and user will always print all print job immediately you need to create shared queue which will work as share queue for all users, ex. named Audit on port should be real server ip and LPR output queue name (in this example this is PaperCut Virtual Queue with all devices connected to find me printing) and with selected option Keep printed documents on Advanced tab.



3. Exclude it from PaperCut print provider by adding it to IgnoredPrinters list: open the file [app_dir]\providers\print\win\print-provider.conf in a text editor such as Notepad. Locate the line IgnorePrinters= and enter the full name of the printer on the right-hand-side of he equals line. For example: **IgnorePrinters=Audit**

4. Print Audit Service is going to watch all queues with **Keep printed documents** flag and produce pdf and xml file and leave original spool file. In xml we have all metadata for this auditing process. All of those 3 files will be store in folder where Umango has a job to do.



DocSlide Print Audit job configuration with offline silent monitoring of print jobs with keywords.

1. Create new dummy destinations. We don't want to print any job at the end of this process because it was already printed. We want to do silent monitoring of already printed jobs.

Edit destination	
Destination type: todummy Destination name	
Dummy destination	
🛃 Log job details 🕫	
Save Cancel	

Destination name

• Log job details

- Name of destination
- We want just to get info about job but
- delete it in the end of flow
- 2. Create Print Auditing processor with offline silent monitoring.

Here we are creating an audit processor which will be added to flow. We want to search for some forbidden keywords to audit all documents processed by this flow. In this processor we want to do offline silent monitoring of all print jobs already printed by user. We will mark keywords in pdf created and sent to admin, we will not notify user, because he already printed his print job. DocSlide will use dummy destination to just not deliver files anywhere.

-

Editing processor				
Print Audit (auditpdf)				
A Make sure that files intended to be audited are Searchable PDFs				
Searched keywords in documents, place each sentence in new line, in case of Regula Expressions prefix them with "regex."				
Features XML				
Mark keywords in audit document				
BICK senaing the to user				
✓ PDF tiles in joos are only metaoata ♥ Audit mail sonder address				
[user_email]				
Audit mail recipient address				
[user_email]				
Audit mail subject				
Print Audit Job				
Audit mail body				
This document cointains sensitive key word: [words]				
✓ Save × Cancel				

- Destination name Name of destination
- Searched keywords in documents, place each sentence in new line, in case of Regula Expressions prefix them with "regex:" - Keywords you want to search in docs, you can use regex
- Mark keywords in audit document
 Marking of keyword in
 document send to admin
- PDF files in jobs are only metadata we want pdfs to be just metadata files

- Audit mail sender address [user_login] we should user this metadata
 Audit mail recipient address [user_login] we should user this metadata
 Audit mail subject Email subject
- Audit mail body
 Email body
- 3. Create Print Auditing flow.

We need to create xml folder flow, where DocSlide will get all files from iTS Print Audit Service. It should be an original spool file, xml with metada and tiff file. In xml we have all metadata to process this auditing, including path to original spool files, name of printer, user login and document name. We need of course to add to this flow in the first position OCR processor which will produce pdf searchable and just under auditing processor which will audit this document. In the end we need to choose lpr printer destination.

Editing flow Print Audit	Details of selected destination
	Print Audit Papercut Virtual Queue
Folder path	Scan files will be printed.
C:\DocSlide\DEMO\OCR\DocSlidePrin	 Delivery will send to print all files with extension sol
Add wrapping root element	To LPD server: 127.0.0.1:515/VirtualQueue Setting owner of the job to be juser loging
Additional file patterns, confirm with [ENTER] 🗿	
XPath to owner login	
/AuditJob/Owner +	
XPath to filenames	
/Auditlab/Eilac/Eila	
Additional metadata:	
DocumentName : /AuditJob/DocumentName	
PrinterName : /AuditJob/PrinterName	
Add metadata to be extracted from XML:	
Processors	
Available processors Selected processors	
Image to Tiff Print Audit	
Word to PDFs	

• Destination name

Name of destination

•	Folder path	-	this folder where we need to get pdf
	searchable with xml from Uman	igo	
	C:\DocSlide\DEMO\OCR\DocS	SlidePri	ntAuditIn
•	Additional file patterns, confirm	with [EN	ITER] - we want to get just pdfs
•	XPath to owner login	-	/AuditJob/Owner – we will take user
	info from xml		
•	XPath to filenames	-	/AuditJob/Files/File – we will take file
	name from xml		
•	Additional metadata:	-	we can configure here xml metadata
•	DocumentName	-	/AuditJob/DocumentName – this is
	document name from xml		
•	PrinterName	-	/AuditJob/PrinterName - this is printer
	name		
•	Add metadata to be extracted fr	om XML	.: - We can add here more
	metadata		
•	Processors	-	here we need to choose Print Audit
	Processor		
•	Deliver to	-	here we need to create LPR Printer
	Destination		

If you have any questions about this release of DocSlidePrintAuditing then please do not hesitate to contact ITS Support via email at <u>helpdesk@its-group.com</u> or call +44 (0)20 8869 1960.