

# Curtain e-locker Data Loss Prevention

We safeguard your information!



# Agenda



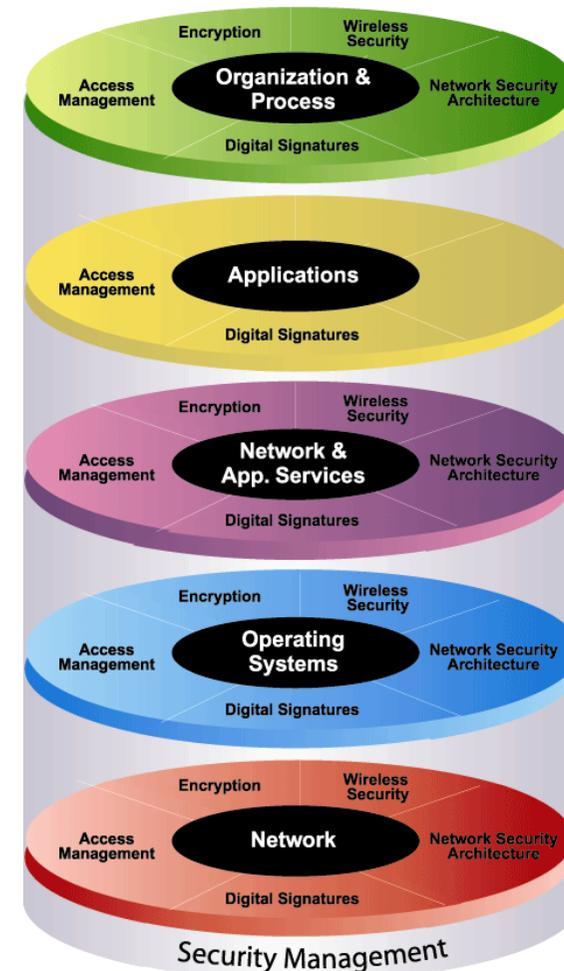
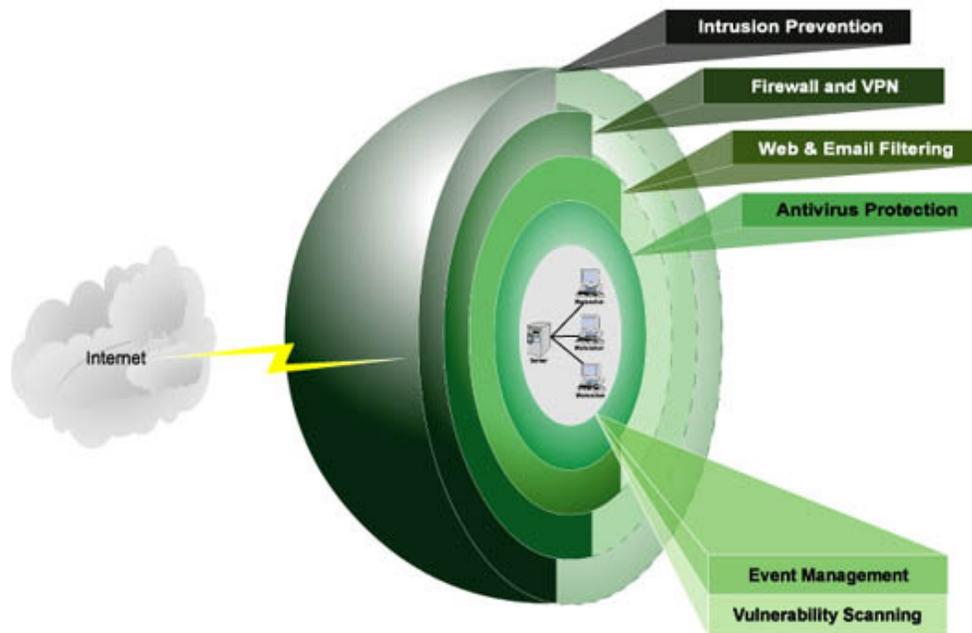
## CURTAIN – Security challenges

- CURTAIN – How we safeguard your information
- CURTAIN – Deployment



# Security challenges

## Multiple Layered Security Control



- **Perimeter-based** security solutions: Intruder Prevention, Firewall & VPN, Web & Email Filtering, Antivirus , Anti-spam.

# Security challenges

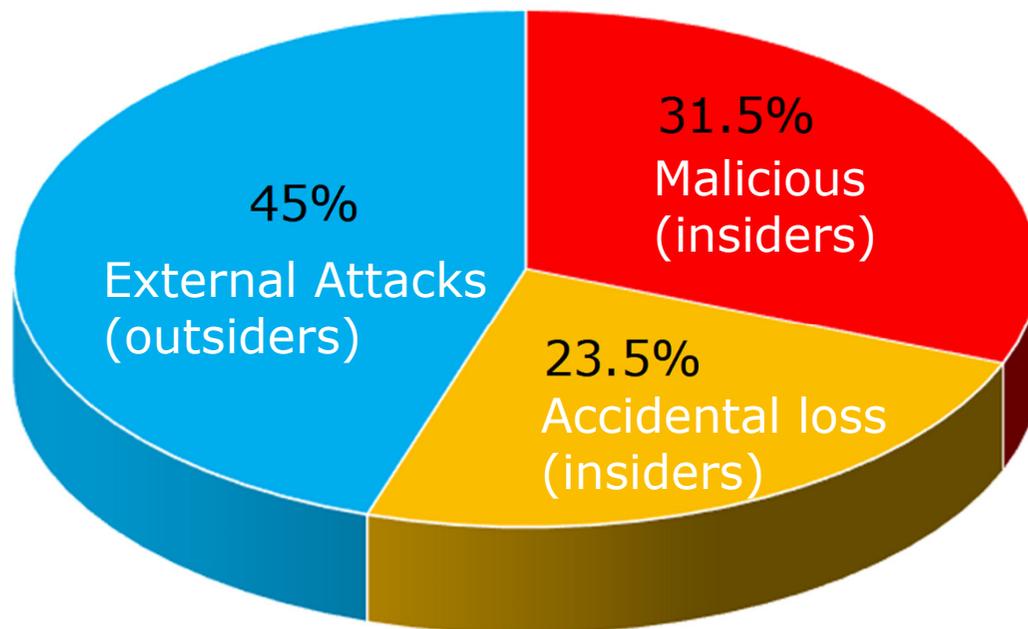
## Comprehensive External Security Control



- **Expensive and difficult** to implement and manage these layered defenses. Still, It **cannot protect internal documents**.

# Security surveys

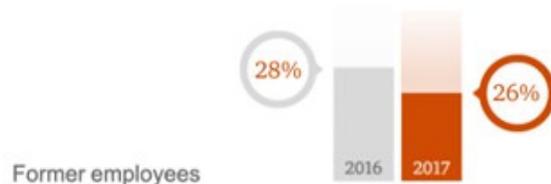
- Insider Threats Outrank External Attacks
  - **55% (Insiders) VS 45% (Outsiders)**



- Insider breach should be higher than 55%
- Because it is not easy to discover insider copies information to external devices

# Security surveys

More and more surveys show that Insider Threats are the top source of security incidents



### Insider Threats as the Main Security Threat in 2017

TRIPWIRE GUEST AUTHORS  
APR 11, 2017 | IT SECURITY AND DATA PROTECTION



### Half of data breaches are the fault of insiders, not hackers, research finds

Panel urges companies to avoid euphemisms and acknowledge when they've been breached - or risk being fined



Sources:

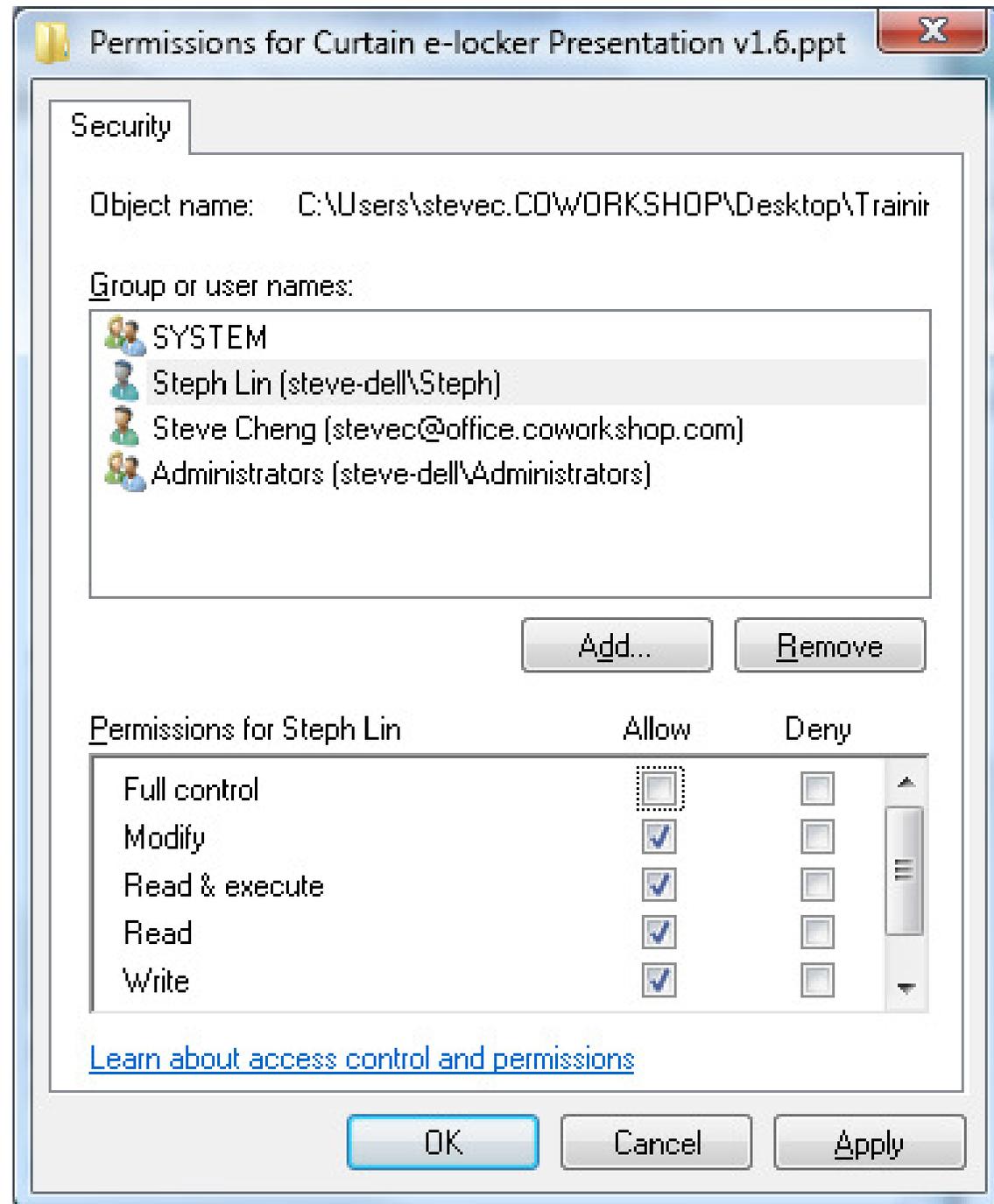
<https://www.pwc.com/us/en/services/consulting/cybersecurity/library/information-security-survey.html>

<https://www.tripwire.com/state-of-security/security-data-protection/insider-threats-main-security-threat-2017/>

<https://www.computing.co.uk/ctg/news/3063537/half-of-data-breaches-are-the-fault-of-insiders-not-hackers-research-finds>

# The problem

- Most systems only have first-tier access control (i.e. read, write, edit, etc).
- But once users get **READ** rights, they **own** the document.



# The problem

Once users get READ rights, they can...

- **Print**
- **Print screen**
- **Save to USB disk**
- **Copy & paste**
- **Email**
- **WhatsApp, Skype, WeChat**
- **Upload to Dropbox, FTP**
- **Take video by cell phone**
- **More...**



# New technologies

- **5G Network** is coming. Download speeds will approach 20 Gbps. It means you can download an HD movie in 2-3 seconds



- Administrative security **policies and procedures are NOT enough** for the Trusted Community

## Traditional ways

Some companies try to prevent data leakage by:

- Control USB port
- Control Internet access
- Control usage of printer
- Control data sharing

**Question: Is it the way out?      Definitely, NOT!**

- Expensive & difficult
- Inconvenient (No Internet, No email, No USB...)
- The most important is: Not a complete solution!
- Smart users can copy data through a cross cable

## A complete solution

Curtain e-locker is a **Data Loss Prevention (DLP)** system that prevents sensitive information from leaking out of the company.

**Curtain e-locker  
is a complete solution  
to stop  
Data Leakage!**



# Agenda

- CURTAIN – Security challenges



CURTAIN – How we safeguard your information

- CURTAIN – Deployment

# A complete solution

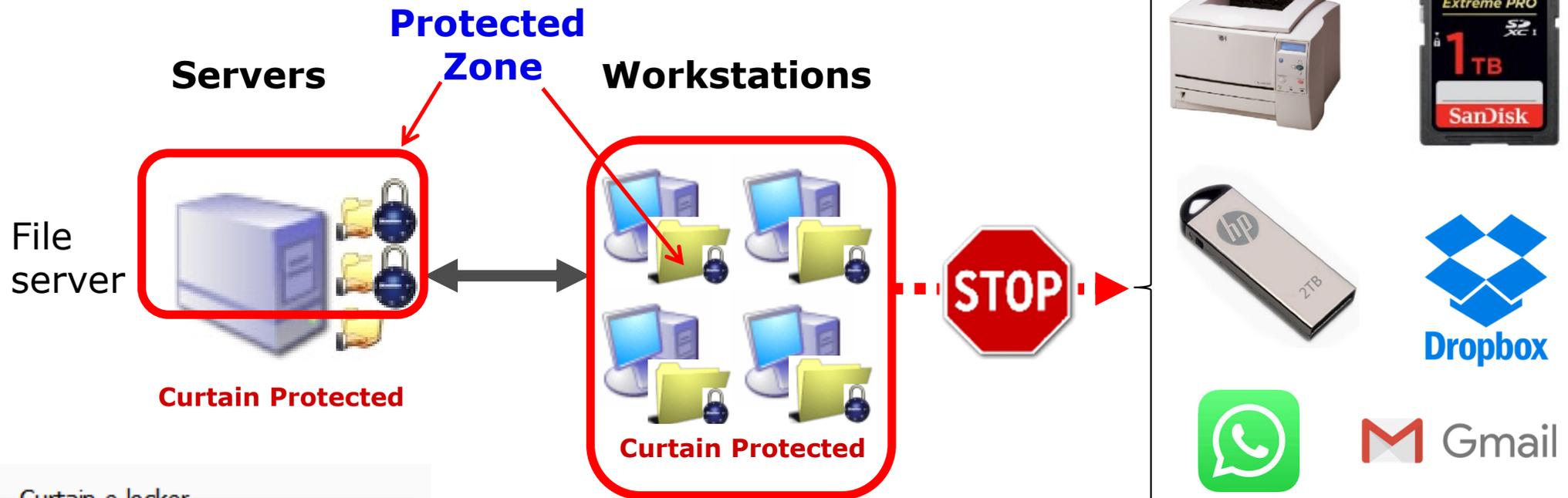
It changes “Uncertainty” to “Company Practice”

## File Rights:

- control **Save Anywhere**
- control **Send**
- control **Print**
- control **Print Screen**
- control **Copy and Paste out**
- control **New Document**



# Architecture



## Curtain e-locker

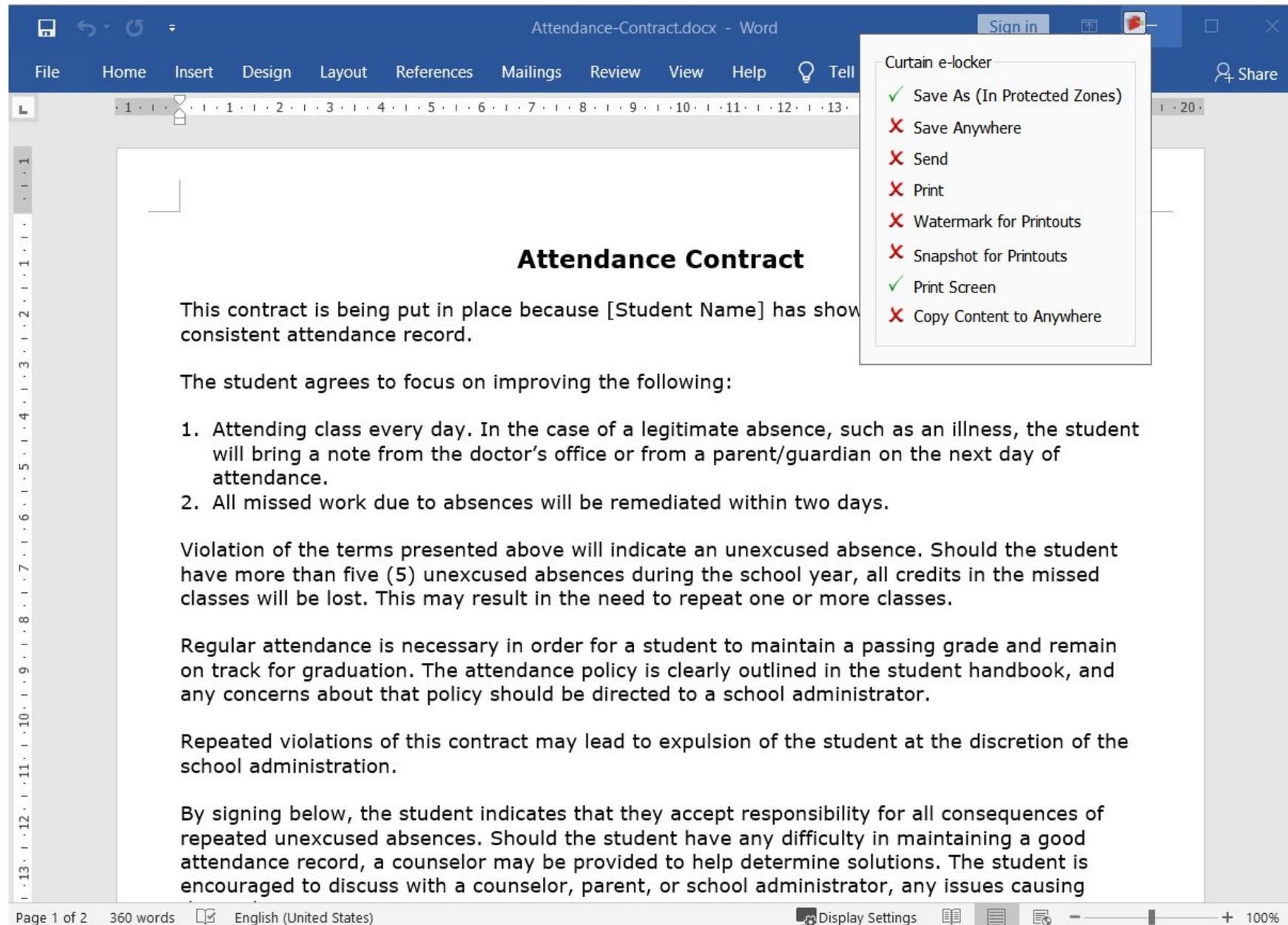
- ✓ Save As (In Protected Zones)
- ✗ Save Anywhere
- ✗ Send
- ✗ Print
- ✗ Watermark for Printouts
- ✗ Snapshot for Printouts
- ✗ Print Screen
- ✗ Copy Content to Anywhere

Curtain client must be installed, in order to access server protected directories. A local protected directory will be created.

- Server protected directories
- Local protected directory
- It forms a **Protected Zone**. All unauthorized actions are prohibited

How it works?

Permissions (e.g. save anywhere, send, print, copy) can be configured per user/user group by administrators



The screenshot shows a Microsoft Word document titled "Attendance-Contract.docx - Word". The document content is as follows:

**Attendance Contract**

This contract is being put in place because [Student Name] has shown a consistent attendance record.

The student agrees to focus on improving the following:

1. Attending class every day. In the case of a legitimate absence, such as an illness, the student will bring a note from the doctor's office or from a parent/guardian on the next day of attendance.
2. All missed work due to absences will be remediated within two days.

Violation of the terms presented above will indicate an unexcused absence. Should the student have more than five (5) unexcused absences during the school year, all credits in the missed classes will be lost. This may result in the need to repeat one or more classes.

Regular attendance is necessary in order for a student to maintain a passing grade and remain on track for graduation. The attendance policy is clearly outlined in the student handbook, and any concerns about that policy should be directed to a school administrator.

Repeated violations of this contract may lead to expulsion of the student at the discretion of the school administration.

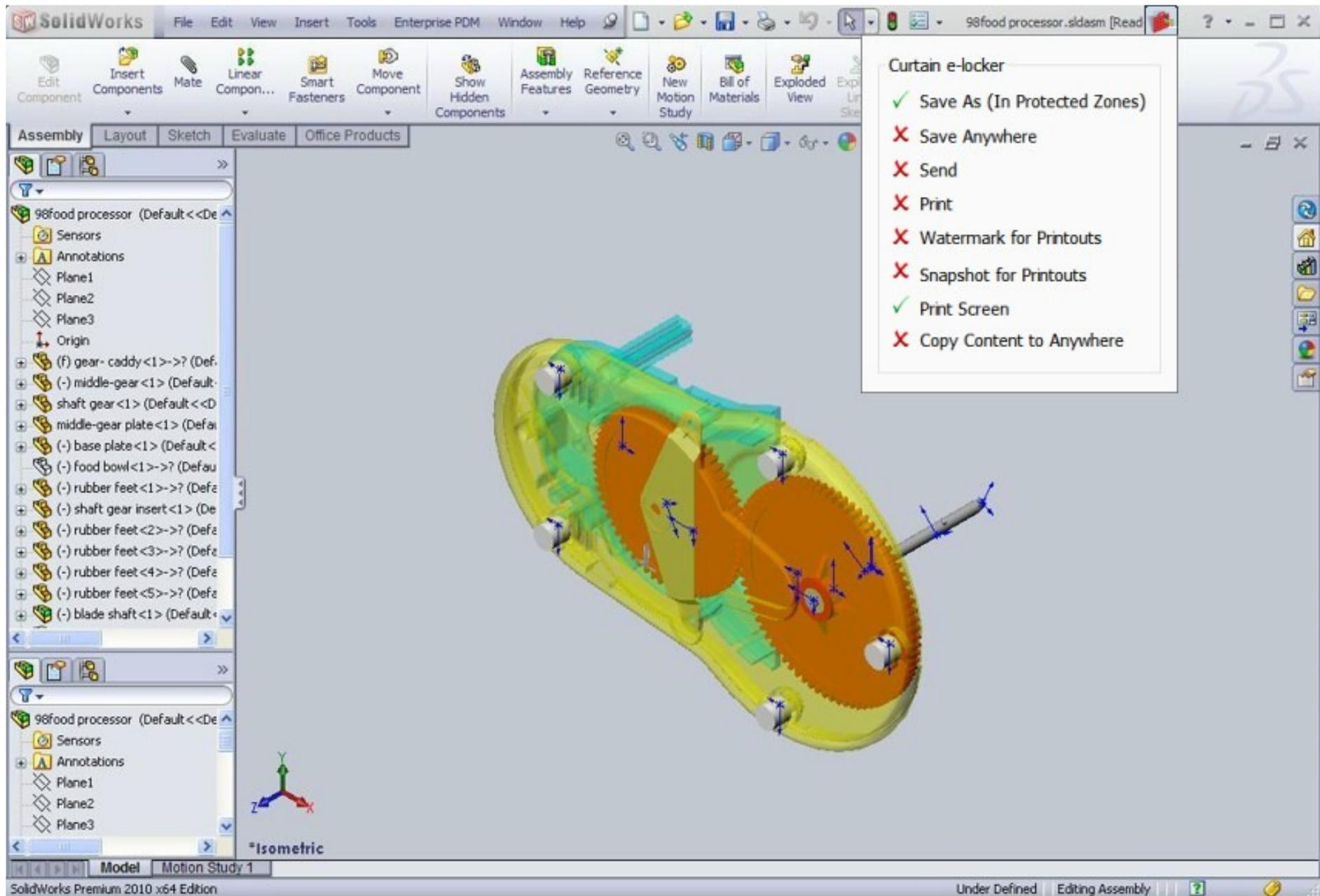
By signing below, the student indicates that they accept responsibility for all consequences of repeated unexcused absences. Should the student have any difficulty in maintaining a good attendance record, a counselor may be provided to help determine solutions. The student is encouraged to discuss with a counselor, parent, or school administrator, any issues causing

The permissions menu is open, showing the following settings:

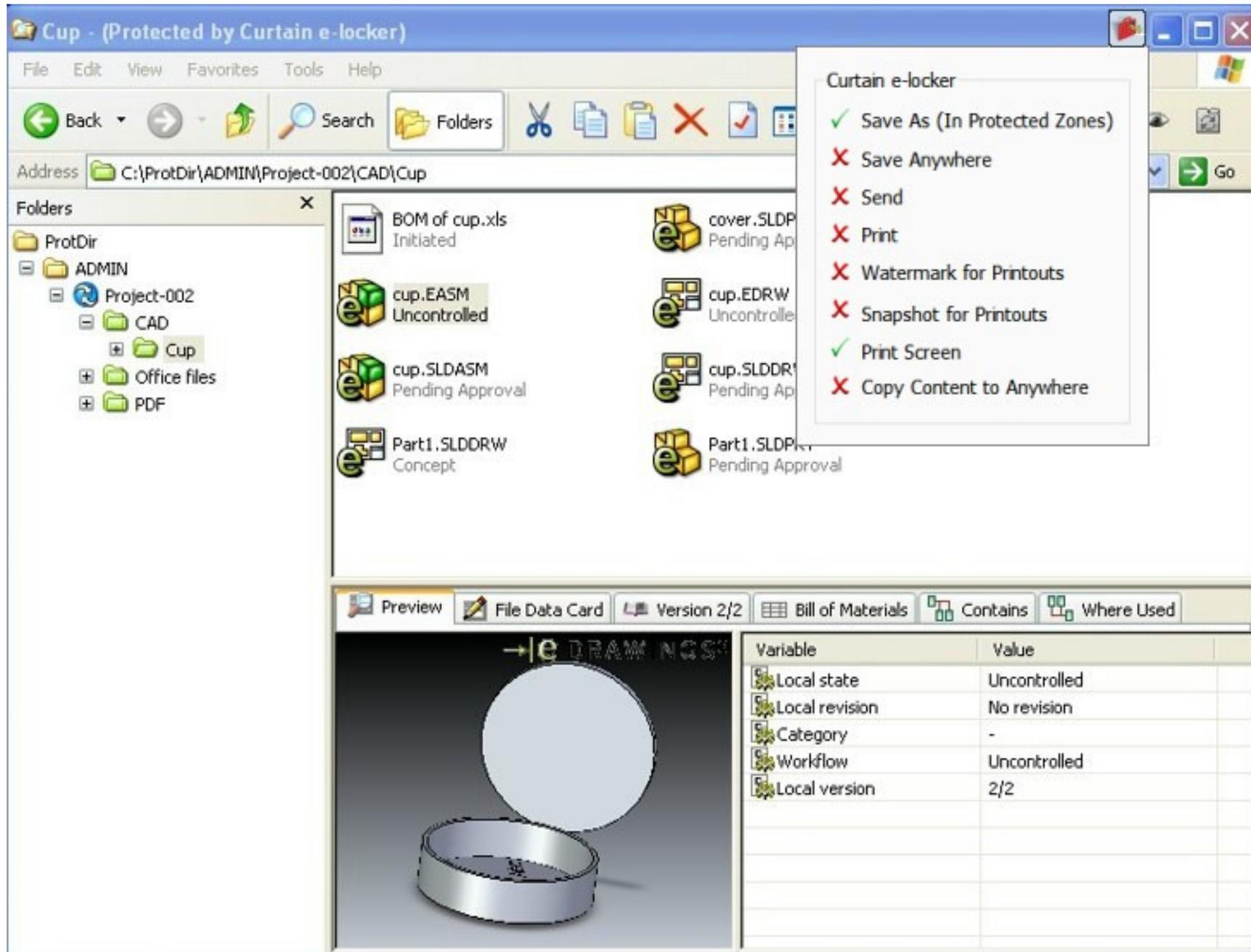
- ✓ Save As (In Protected Zones)
- ✗ Save Anywhere
- ✗ Send
- ✗ Print
- ✗ Watermark for Printouts
- ✗ Snapshot for Printouts
- ✓ Print Screen
- ✗ Copy Content to Anywhere

Page 1 of 2   360 words   English (United States)   Display Settings   100%

# Curtain e-locker with SOLIDWORKS



# Curtain e-locker with SOLIDWORKS EPDM



**Curtain e-locker**

- ✓ Save As (In Protected Zones)
- ✗ Save Anywhere
- ✗ Send
- ✗ Print
- ✗ Watermark for Printouts
- ✗ Snapshot for Printouts
- ✓ Print Screen
- ✗ Copy Content to Anywhere

Variable	Value
Local state	Uncontrolled
Local revision	No revision
Category	-
Workflow	Uncontrolled
Local version	2/2

## Application-level protection

- Users can access sensitive files by **using the native application** (not through a third party file viewer)
- Curtain supports **over 200 applications**, includes MS Office, Adobe Acrobat, AutoCAD, Photoshop, CorelDraw, and etc.
- Applications can be added to the support list upon request, including self-developed system
- Application-level protection **does not change user behavior**. Users still use native application for reading & editing

# Supported applications

We cover over 200 applications. Please refer to our website for the full list.

## Office Applications

- Adobe Acrobat
- Adobe Reader
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Access
- Microsoft Visio
- Microsoft Project
- Microsoft Office Picture Manager
- Microsoft Internet Explorer
- Notepad, WordPad, Paint
- OpenOffice, WPS
- 7-zip, WinRAR
- PDFill, CutePDF
- Windows Picture and Fax Viewer
- Windows Media Player
- VLC media player
- Kodak imaging for Windows
- Google Chrome

## CAD/CAM

- AutoCAD
- AutoCAD LT
- Altium Designer
- SolidWorks
- SolidWorks Simulation
- SolidWorks EPDM
- 3ds Max
- 3DVIA
- DraftSight
- eDrawings
- Gerber AccuMark
- JewelCAD
- MasterCAM
- PADS, CAXA
- PTC Creo
- Rhinoceros
- Unigraphics NX
- ZWCAD (中望)

## Graphics Design

- Adobe Illustrator
- Adobe Photoshop
- CorelDRAW
- Adobe After Effects
- Adobe Lightroom



## Online/Offline protection

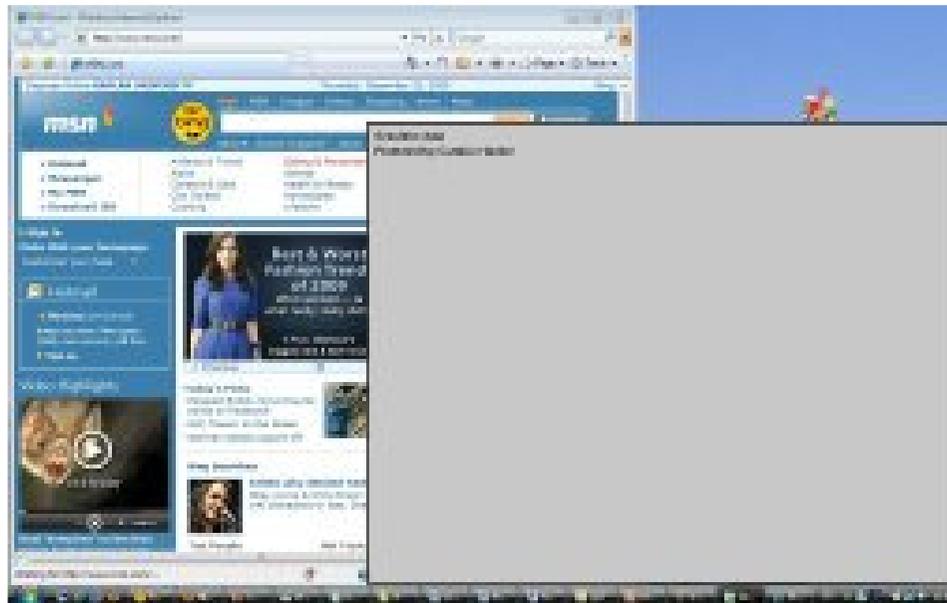
- **Online/Offline controls** – “Sensitive data can be used”:
  - ONLY when the PC is online
  - ONLY when the PC is online within a period of time (e.g. 2 hrs)
  - Even the PC is offline
- Users can **download sensitive information to local protected directory**, and go out for meeting or business trip
- Information in local protected directory is **still protected by Curtain e-locker, even the PC is offline**
- Users can **edit files in local protected directory**. When they come back office, they can upload the latest version of files back to servers

# Smart protection

- **Protect first draft** – if this feature is enabled, user must save newly created document to protected zone. This feature **protects information at the point of creation**
- **Smart copy & paste control:**
  - Copy & paste in-between documents in protected zone is allowed
  - Copy data to protected zone is allowed
  - However, copy data from protected zone to other locations is prohibited
- **Personal local protected directory**

# Screen capture protection

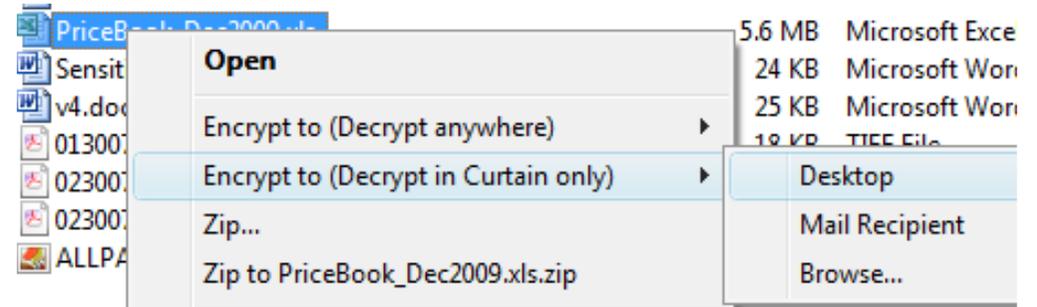
- **Smart screen-capture protection:**
  - Only sensitive data is dimmed
  - Users still enjoy the convenience of screen-capture for non-sensitive data



- **Screen-dump software is also blocked**

## Secure file sharing (internal)

- **Encrypt sensitive file first** – the encrypted file can be copied out of protected zone.



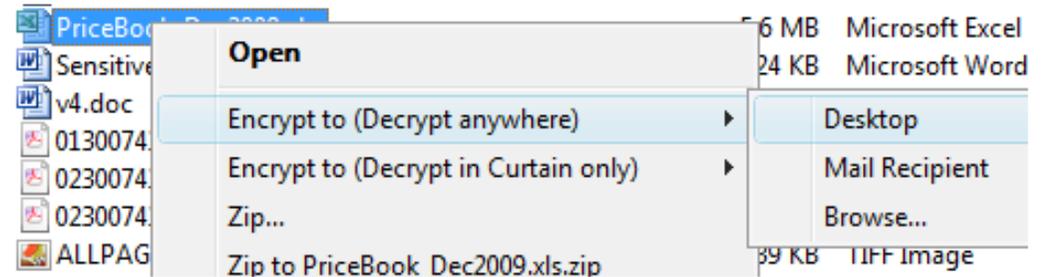
- **Send the encrypted file to colleague**



- **Colleague simply double-clicks the encrypted file** – the file will be automatically decrypted to protected directory for viewing or editing.

# Secure file sharing (external)

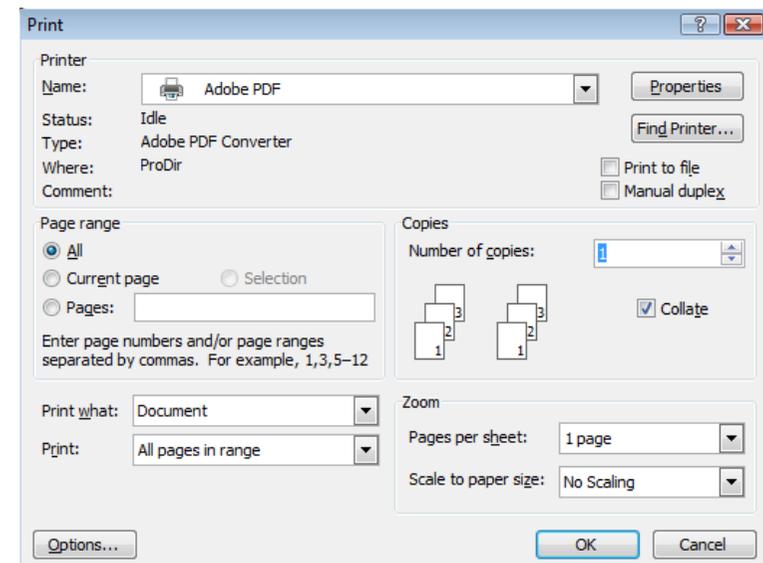
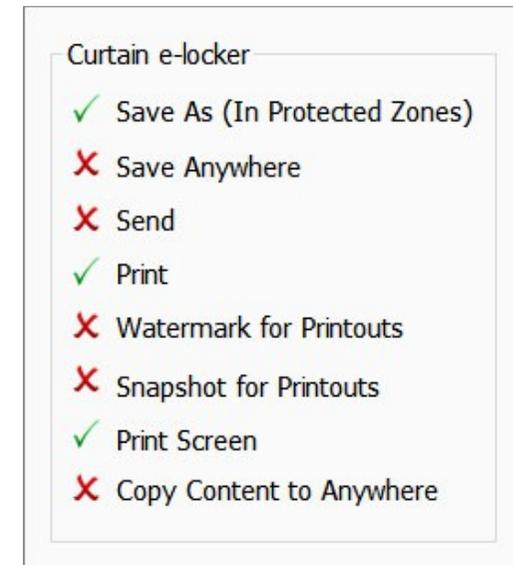
- **Encrypt sensitive file with password** – the encrypted file can be copied out of protected zone.
- **Copy/Send the encrypted file to your business partner** – the sensitive file is encrypted in USB drive or Email.
- **Your business partner can decrypt the file by entering correct password** – the file will be automatically decrypted for viewing or editing.



# Secure generation of PDF file

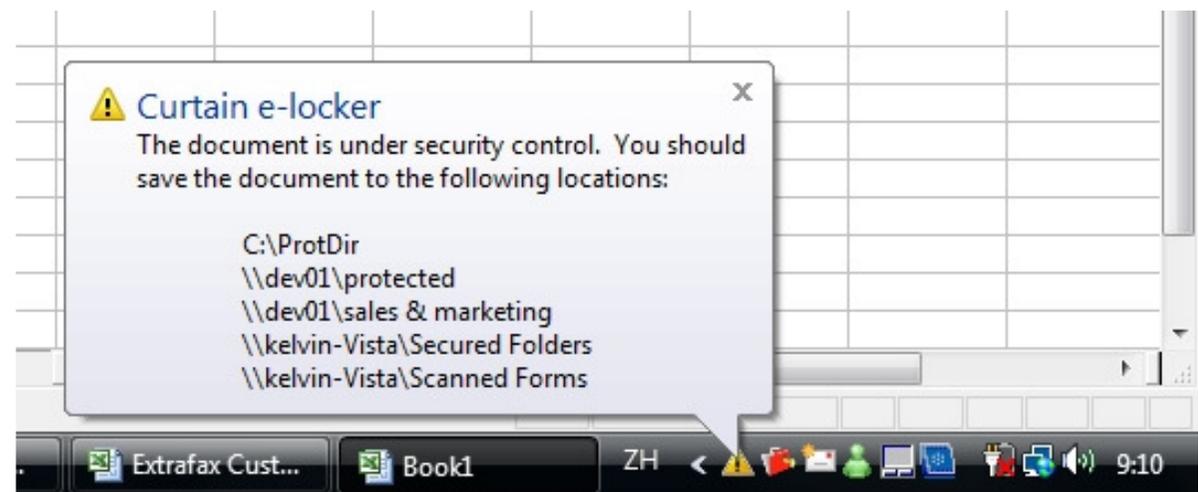
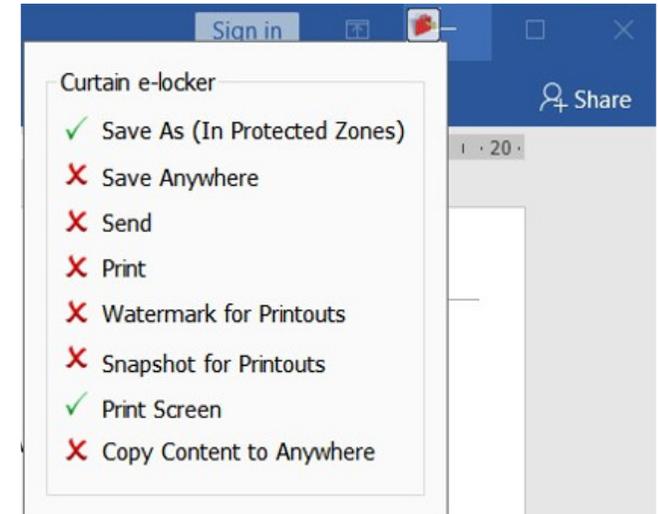
## ■ Secure "Print to PDF"

- Users can convert sensitive documents to PDF format by using the function of print-to-pdf.
- However, **the pdf file can be only saved to protected zone.** It makes a good balance on convenience and security. Users can generate pdf files, but data still cannot be leaked out of the company through this channel.



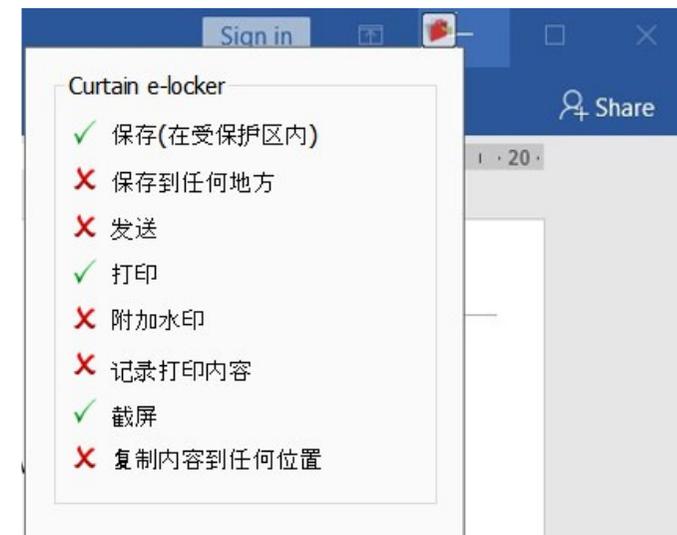
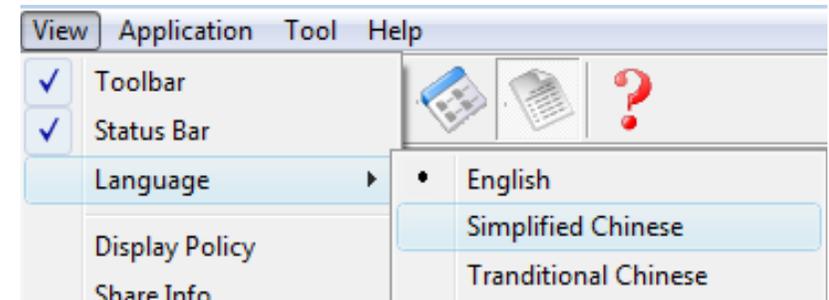
# User-friendly interface

- **User-friendly Client Interface** – Windows Explorer-like interface and all columns can be sorted
- **Policy droplet**– Users can click the droplet to view their rights to the document
- **Clear message** – Curtain provides clear message to users, so that they know what they can do to the controlled document



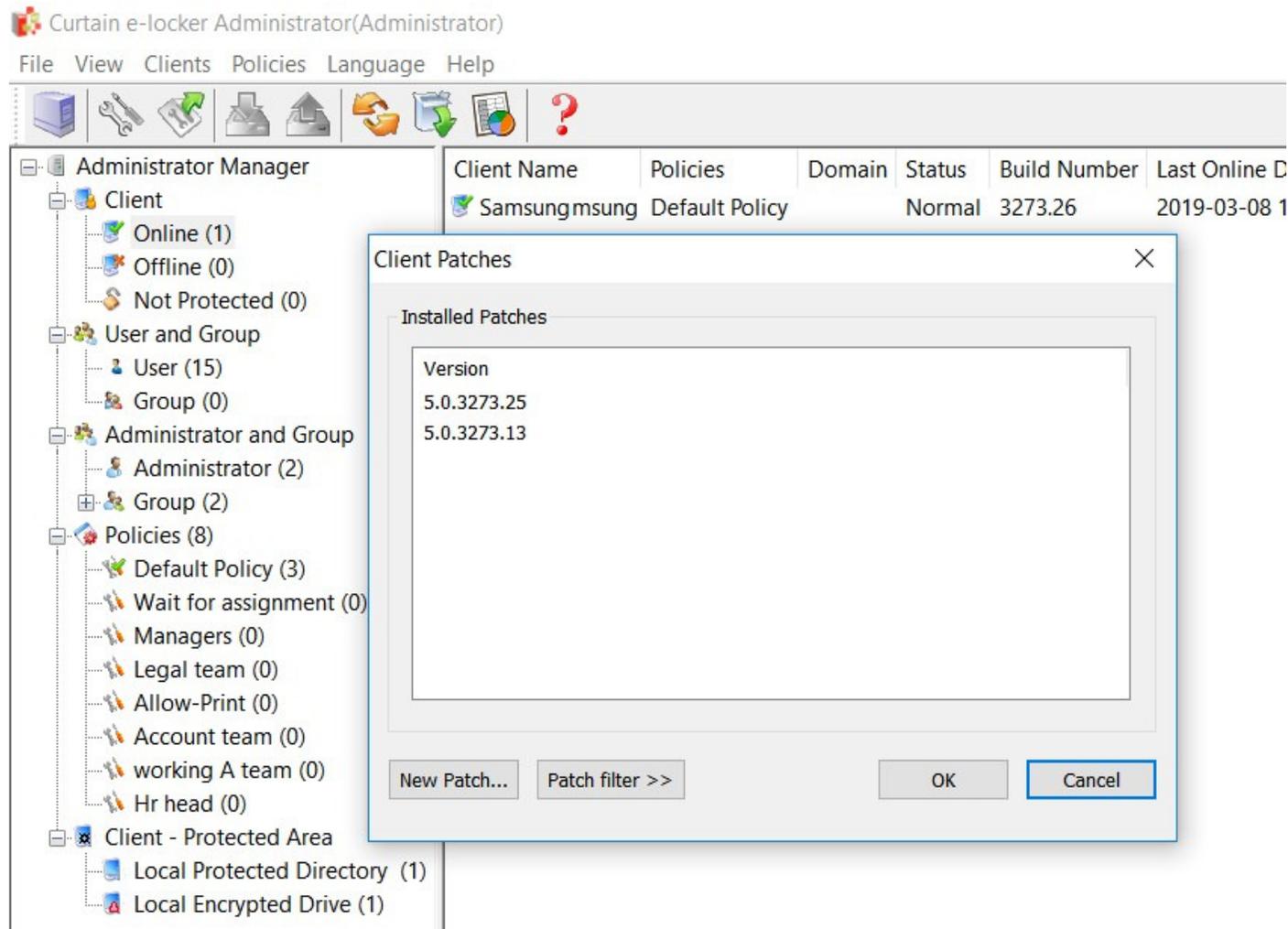
# Multi-lingual support

- **Multi-lingual** – Curtain supports English, Traditional Chinese, and Simplified Chinese.
- **Switch between languages** – Users can switch between languages themselves. There is only one installer for all languages.
- **Fully localized** – All prompts, bubbles, and messages from Curtain are shown in selected language.



# Easy administration

- **Auto patch update** – Patches are automatically applied to clients



The screenshot shows the 'Curtain e-locker Administrator' application window. The main interface includes a tree view on the left, a menu bar (File, View, Clients, Policies, Language, Help), and a toolbar. A table displays client information for 'Samsungsung'.

Client Name	Policies	Domain	Status	Build Number	Last Online D
Samsungsung	Default Policy		Normal	3273.26	2019-03-08 1

A 'Client Patches' dialog box is open, showing a list of installed patches:

Version
5.0.3273.25
5.0.3273.13

The dialog box also contains buttons for 'New Patch...', 'Patch filter >>', 'OK', and 'Cancel'.

# Housekeeping

- Admin can define different rules to clean up files in users' local protected directories, such as daily, weekly, N days, and etc

Default Policy

Settings System Policy Applications Local Settings Advanced Settings

DISABLE PROTECTION on protected zones (NOT Recommended)

Protected Directory \_\_\_\_\_

  Hide my computer

Hide local protected directory    Protected Directory    ProtDir

Disable delete files in network drive     Additional Protected Directo

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Housekeeping

  Clear the whole local protected directory     Clear temp folder in local protected directory

Startup     Startup

Weekly    Sun Mon Tue Wed Thu Fri Sat     Weekly    Sun Mon Tue Wed Thu Fri Sat

Clear files in local protected directory     Clear recycle bin files in local protected directory

Delete file after download:  Days     Delete file after deleted:  Days

Delete file after modified:  Days

Delete if  applied

---

Copy to Non Protected

Not allowed(Recommended)       

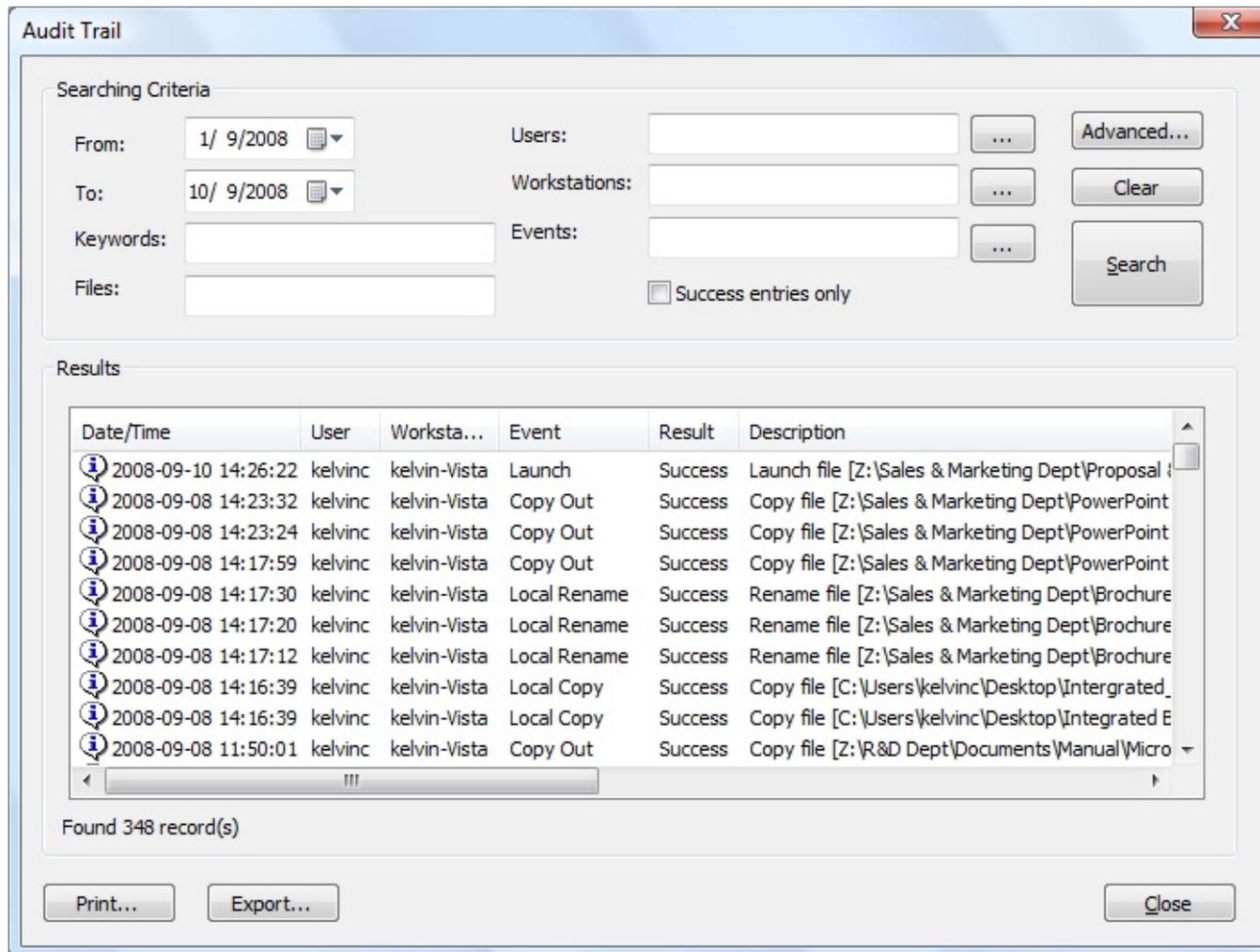
Allow all unsupported type

Allow extensions

Allow all type(Not Recommended)

# Central audit log

- Central audit log is available in Policy server. It logs activities to sensitive files



The screenshot shows the 'Audit Trail' application window. It features a 'Searching Criteria' section with input fields for 'From' (1/ 9/2008), 'To' (10/ 9/2008), 'Keywords', and 'Files'. There are also fields for 'Users', 'Workstations', and 'Events', each with a dropdown arrow. A 'Success entries only' checkbox is present. Buttons for 'Advanced...', 'Clear', and 'Search' are also visible. Below the search criteria is a 'Results' section containing a table with the following data:

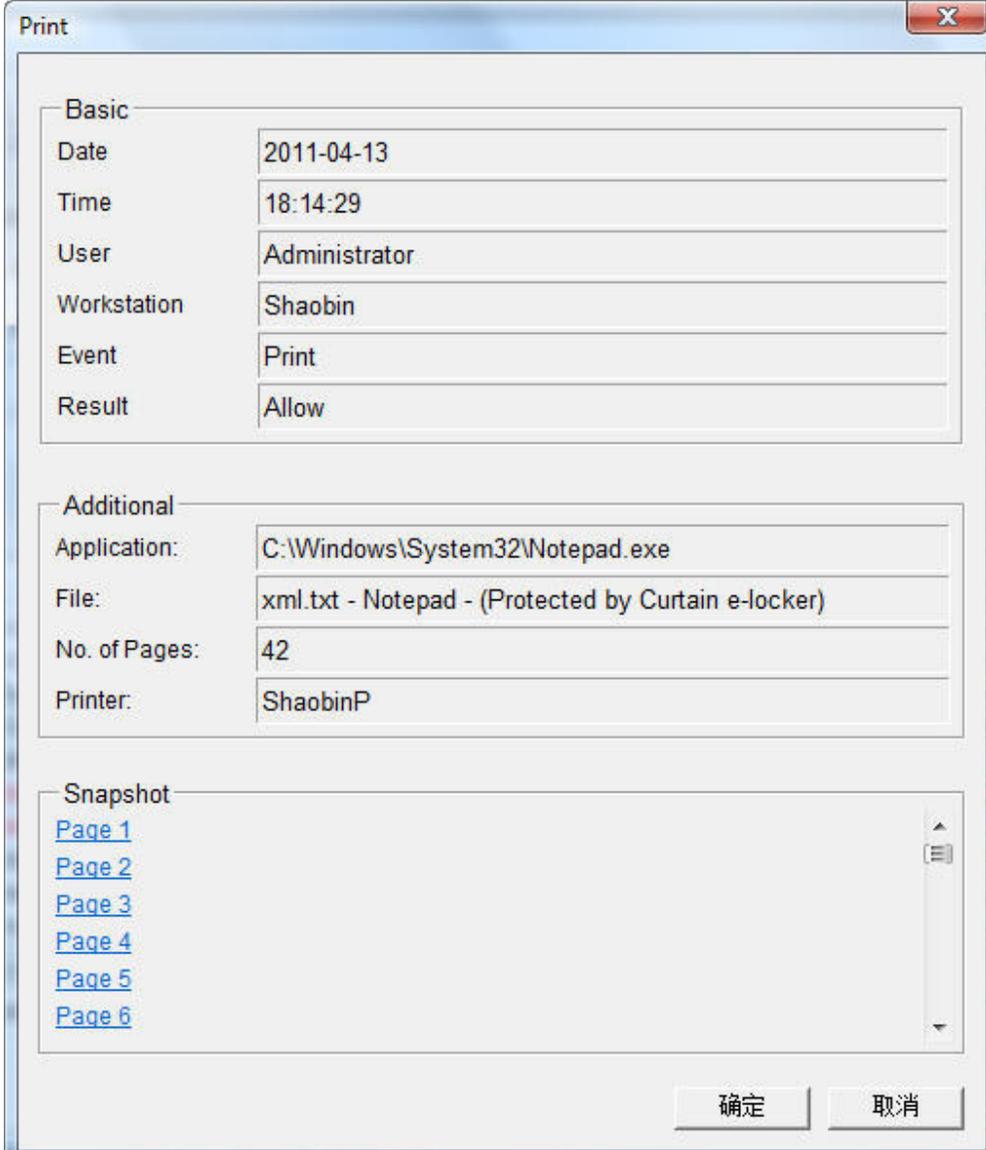
Date/Time	User	Worksta...	Event	Result	Description
2008-09-10 14:26:22	kelvinc	kelvin-Vista	Launch	Success	Launch file [Z:\Sales & Marketing Dept\Proposal ...]
2008-09-08 14:23:32	kelvinc	kelvin-Vista	Copy Out	Success	Copy file [Z:\Sales & Marketing Dept\PowerPoint ...]
2008-09-08 14:23:24	kelvinc	kelvin-Vista	Copy Out	Success	Copy file [Z:\Sales & Marketing Dept\PowerPoint ...]
2008-09-08 14:17:59	kelvinc	kelvin-Vista	Copy Out	Success	Copy file [Z:\Sales & Marketing Dept\PowerPoint ...]
2008-09-08 14:17:30	kelvinc	kelvin-Vista	Local Rename	Success	Rename file [Z:\Sales & Marketing Dept\Brochure ...]
2008-09-08 14:17:20	kelvinc	kelvin-Vista	Local Rename	Success	Rename file [Z:\Sales & Marketing Dept\Brochure ...]
2008-09-08 14:17:12	kelvinc	kelvin-Vista	Local Rename	Success	Rename file [Z:\Sales & Marketing Dept\Brochure ...]
2008-09-08 14:16:39	kelvinc	kelvin-Vista	Local Copy	Success	Copy file [C:\Users\kelvinc\Desktop\Intergrated_ ...]
2008-09-08 14:16:39	kelvinc	kelvin-Vista	Local Copy	Success	Copy file [C:\Users\kelvinc\Desktop\Integrated E ...]
2008-09-08 11:50:01	kelvinc	kelvin-Vista	Copy Out	Success	Copy file [Z:\R&D Dept\Documents\Manual\Micro ...]

Found 348 record(s)

Buttons at the bottom include 'Print...', 'Export...', and 'Close'.

# Print log

- Allow some users to print protected documents out. e-locker will log below information.
  - Date / Time
  - User / Workstation
  - Result (Allow, Deny, etc)
  - Application
  - Printer
  - Filename / Title
  - No. of Pages
  - Snapshot of printouts



The screenshot shows a 'Print' log window with the following data:

Basic	
Date	2011-04-13
Time	18:14:29
User	Administrator
Workstation	Shaobin
Event	Print
Result	Allow

Additional	
Application:	C:\Windows\System32\notepad.exe
File:	xml.txt - Notepad - (Protected by Curtain e-locker)
No. of Pages:	42
Printer:	ShaobinP

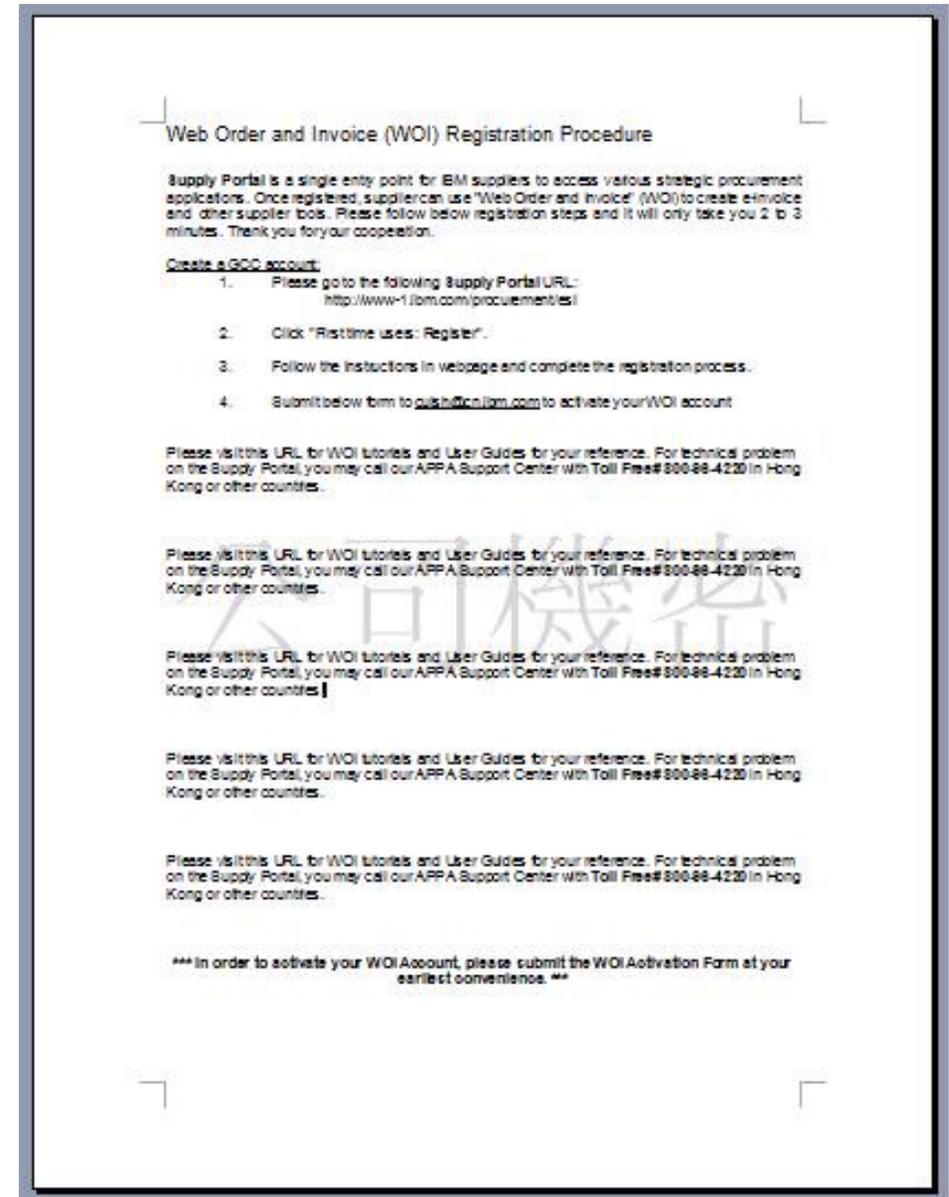
Snapshot

- [Page 1](#)
- [Page 2](#)
- [Page 3](#)
- [Page 4](#)
- [Page 5](#)
- [Page 6](#)

Buttons: 确定 (OK), 取消 (Cancel)

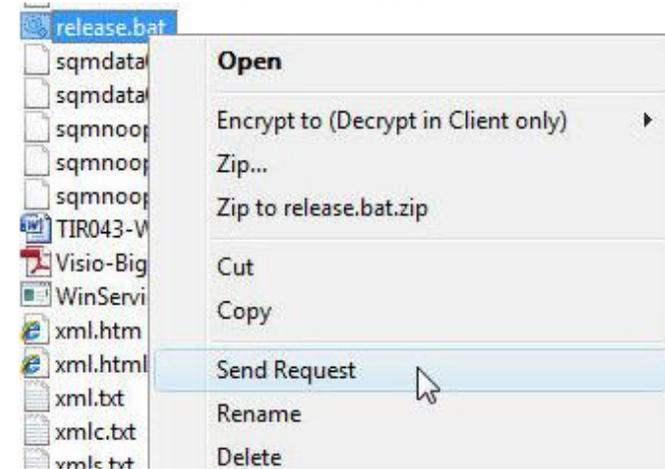
# Watermark

- Allow some users to print protected documents out with self-defined watermark
  - Date / Time
  - User / Workstation
  - Printer name
  - Page number
  - Self-defined sentence
- Adjustable
  - Margins
  - Font colour
  - Font size
  - Transparency



# Send request

- If an unauthorized user needs to copy a protected document out, the user can submit a Request for approval.
  - Select protected document(s) and right-click to select "Send Request"
  - After complete the form (e.g. Request reason), the request will be sent to approver
  - Approver can approve or reject the request
  - The whole approval process will be logged in Audit Trail



✕

Send Request

Request Files

C:\ProtDir\KELVIN\Part-01567875-designBOM.xlsx

Requester \*

Steve Cheng

Email of Requester \*

stevec@coworkshop.com

Request Reason

need to send design to factory

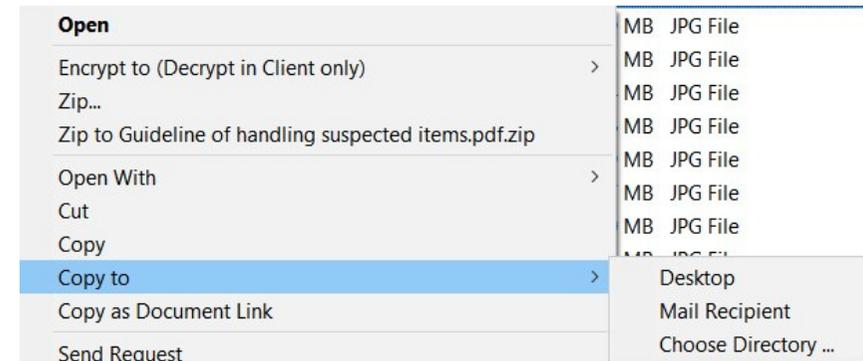
Select Approver \*

Approver Name	Email	Position	Remarks
Kelvin Cheung	kelvinc@c...	IT Director	
David Lam	davidl@c...	Head of Production	

Auto-sending Send Request email through SMTP

# Copy-out with declaration

- Admin can allow authorized users to copy protected document out after filling up declaration form. The log can be sent to team heads periodically. No Approval is needed
- Select protected document(s) and right-click to copy file out
- After complete the form and click OK, the file will be copied out from protected zone
- Admin can enable Auto-Send function, to deliver the log to different dept/team heads periodically
- The form is self defined



**File Copy Out Reason** ✕

Please fill in the reason of file copy out(Must)

for Security Bureau review

10~200 english characters or 5~100 chinese characters

Send To(Must)

Other External Organizations

Data Type(Must,Select at least one item)

Customer Personal Data    Customer Data Number: 1 to 50 (Small)

Customer Financial Data    Customer Data Number: 1 to 50 (Small)

Our Bank Financial Data

Other Sensitive Data

Non Sensitive Data

Other Remarks

10~200 english characters or 5~100 chinese characters

OK
Cancel

# USB token login



- By default there is no password needed for Curtain Client
- Admin can enable Client Password, to enforce users to login Curtain Client by password / USB token
- After enable this, users will be requested to set password OR insert USB token with digital certificate next time when launching Curtain Client



Select Authentication Method

CURTAIN Secured e-locker in workstation

Please select the authentication method.

Custom Password

USB Token

OK Cancel



Create new password

CURTAIN Secured e-locker in workstation

Please enter a new password.

New Password:

Repeat Password:

Password must be 6-16 characters (case sensitive and space is not allowed).

OK Cancel

# Curtain Admin delegation

- Super-admin can create administrator accounts and assign them to different admin groups
- Delegate administrative permissions to different admin groups (e.g. allow an admin group to maintain a specific policy group)
- Operations in Curtain Admin will be logged for audit purpose



Module	Permission
<ul style="list-style-type: none"> <li>Global settings</li> <li><input checked="" type="checkbox"/> Policies               <ul style="list-style-type: none"> <li>Default Policy</li> <li>Wait for assignment</li> <li>Managers                   <ul style="list-style-type: none"> <li><b>Legal team</b></li> <li>Allow-Print</li> <li>Account team</li> </ul> </li> </ul> </li> <li>Client</li> <li>User and Group</li> <li>Client - Protected Area</li> <li>Administrator Audit Trail</li> <li>Client Audit Trail</li> <li>Administrator and Group</li> </ul>	<input checked="" type="checkbox"/> View  <input checked="" type="checkbox"/> Modify
	<b>Module description</b> Policy Management, includes: - All settings of a policy - Rename and delete a policy

# Control policies



- Control policies can be assigned per Workstation OR User
- Support both Domain and Workgroup environment
- User/user group information can be imported from Active Directory through LDAP

Settings

Port Exception	Share Exception	Password Management	
Local Encrypted Drive	File Operation Audit	Database	Send Re
Settings	Server Information	Network Drives Protection	Port an
Watermarks	LDAP	Assignment of Security Policy	

Assignment of Security Policy

Assigned by Computer  
 Assigned by User

LDAP

Enable LDAP

LDAP Server Address

LDAP Server Port

SSL

Use Secure LDAP Connection

LDAP Username

LDAP Password

LDAP Search Base

LDAP Information Caching  Minutes

# Specific approver & printer



## Approvers for Send Request:

- Admin can assign different approvers to different policy groups for approving copy-out request. It makes sure that users can only submit request to right approver

## Allowed printers:

- Admin can specify allowed printers for different policy groups. It makes sure that sensitive documents can be only printed out in a right place

Legal team

Settings System Policy Applications Local Settings **Advanced Settings**

Approvers

Approver Name	Email	Windows Username	Position
Kelvin Cheung	kelvinc@...	Kelvin-Samsung\kelvin	IT Director
David Lam	davidl@c...	Coworkshop\DavidLam	Head of Production

Printer

Enable local printer

Printer Name	Remarks
EPSON AL-M1200 Advanced	Located in 12/F corridor

# A complete solution

## **Office:**

- Users can work with sensitive information within protected zone
- Users cannot copy files out by all means
- Information is SECURED

## **USB disk (e.g. backup files):**

- Files are encrypted in USB disk
- If USB disk is lost, information is still SECURED

## **Share sensitive files with colleagues:**

- Users can encrypt and send sensitive files to colleagues
- Recipients can decrypt the files to their own protected areas for further file operation

# Agenda

- CURTAIN – Security challenges
- CURTAIN – How we safeguard your information



CURTAIN – Deployment

# Basic components

- **Curtain e-locker Client** 

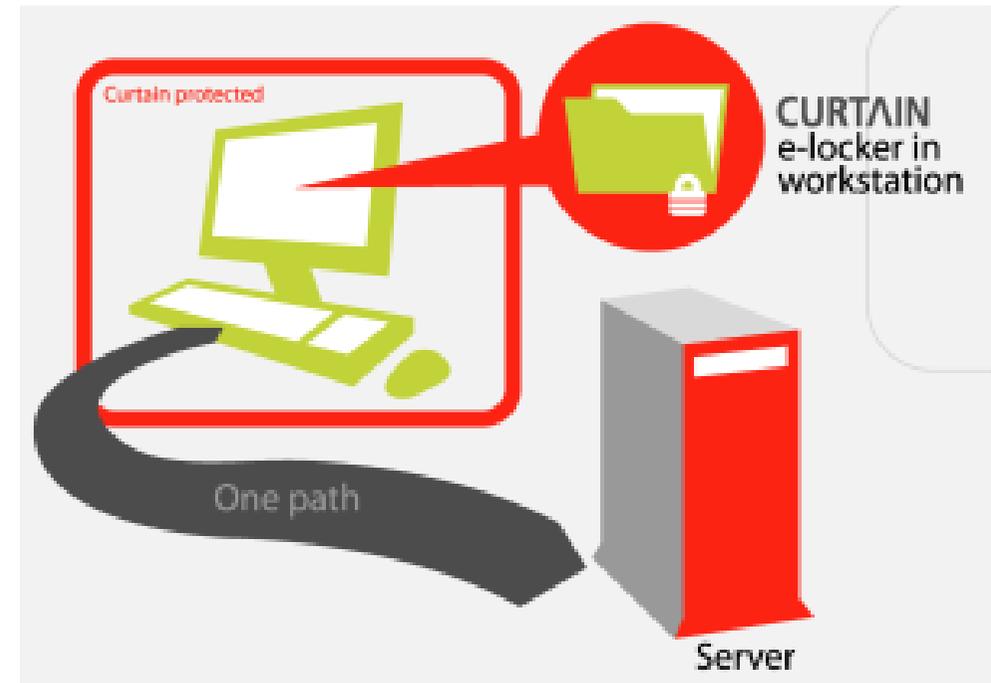
Install in users' workstations. Users access protected files by using this client program

- **Curtain e-locker Policy Server** 

Install in server-side. Admin can define policies and view log centrally

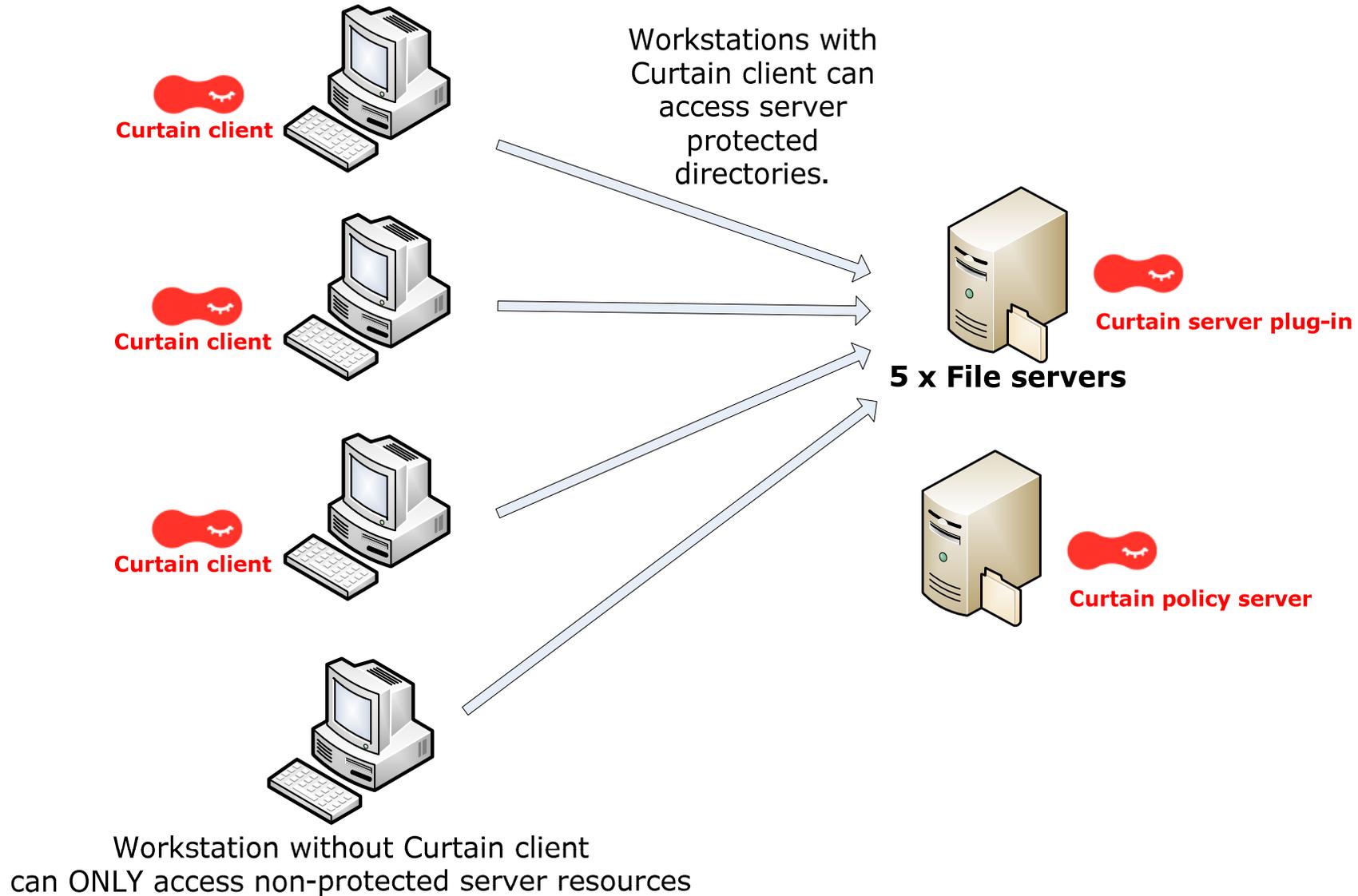
- **Curtain e-locker Server Plug-in**

Install on server(s) you want to protect. For example, if you want to protect shared folders in 5 File servers, you need to install the plug-in in the 5 servers.



# Basic architecture

For example:



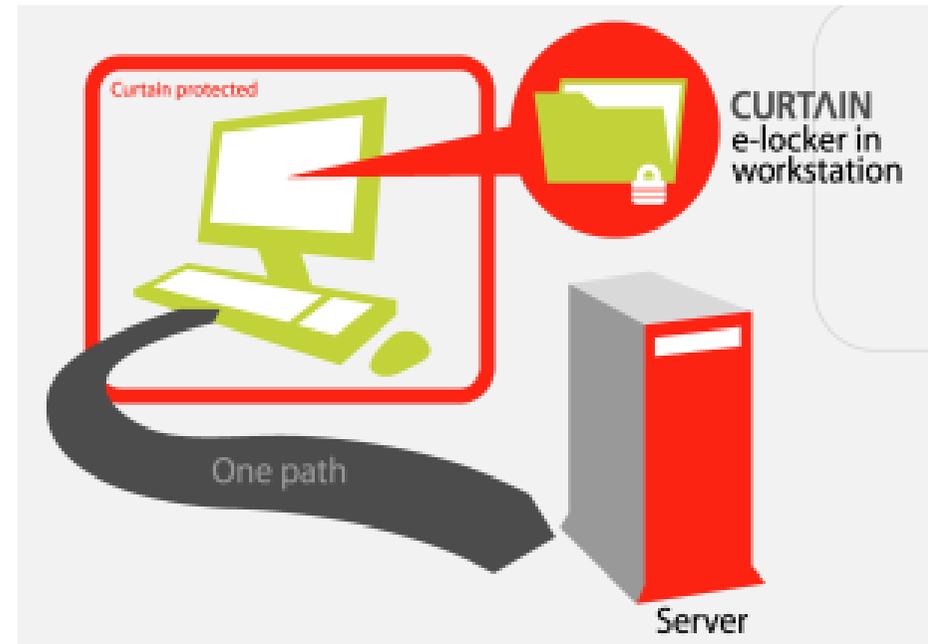
# System requirements

## **Curtain e-locker Client**

- Intel Pentium or above processor
- WinXP/Vista/Win7/Win8/Win10/  
Server 2003/2008/2012/2016/2019  
(both 32/64-bit)
- 128MB RAM (Recommended 256MB RAM)
- 200MB Hard Disk (in NTFS)
- TCP/IP network

## **Curtain e-locker Policy Server**

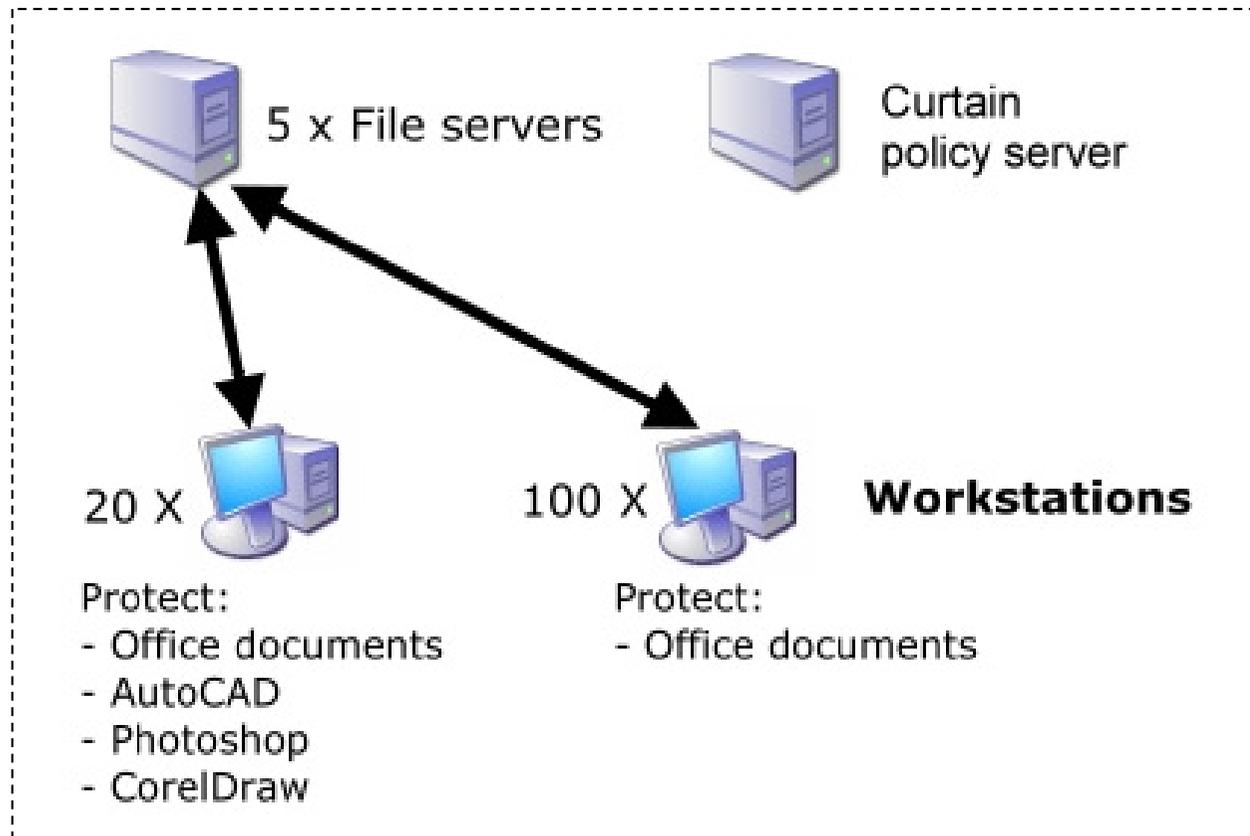
- Intel Pentium or above processor
- WinXP/Vista/Win7/Win8/Win10/  
Server 2003/2008/2012/2016/2019  
(both 32/64-bit)
- 128MB RAM (Recommended 256MB RAM)
- 200MB Hard Disk (in NTFS)
- TCP/IP network



# Pricing model

- Select licensing scheme (Perpetual or Subscription)
- Select Curtain Office Suite license or Universal license
- Select Curtain module for Backend system

For example:

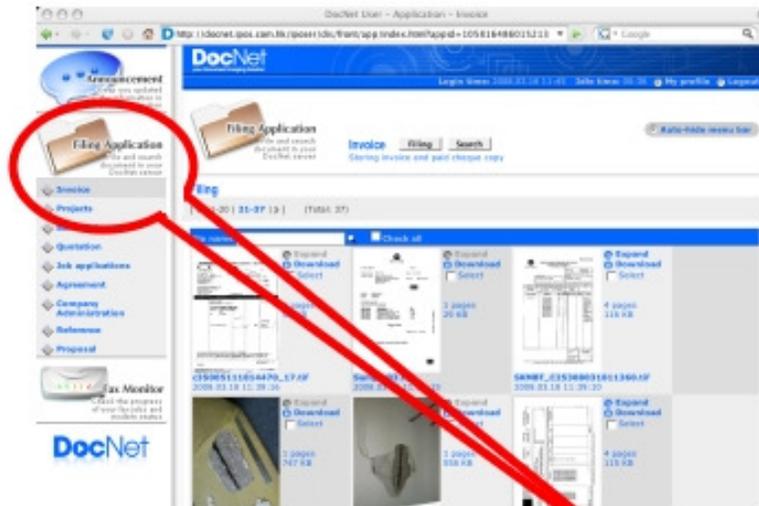


License:

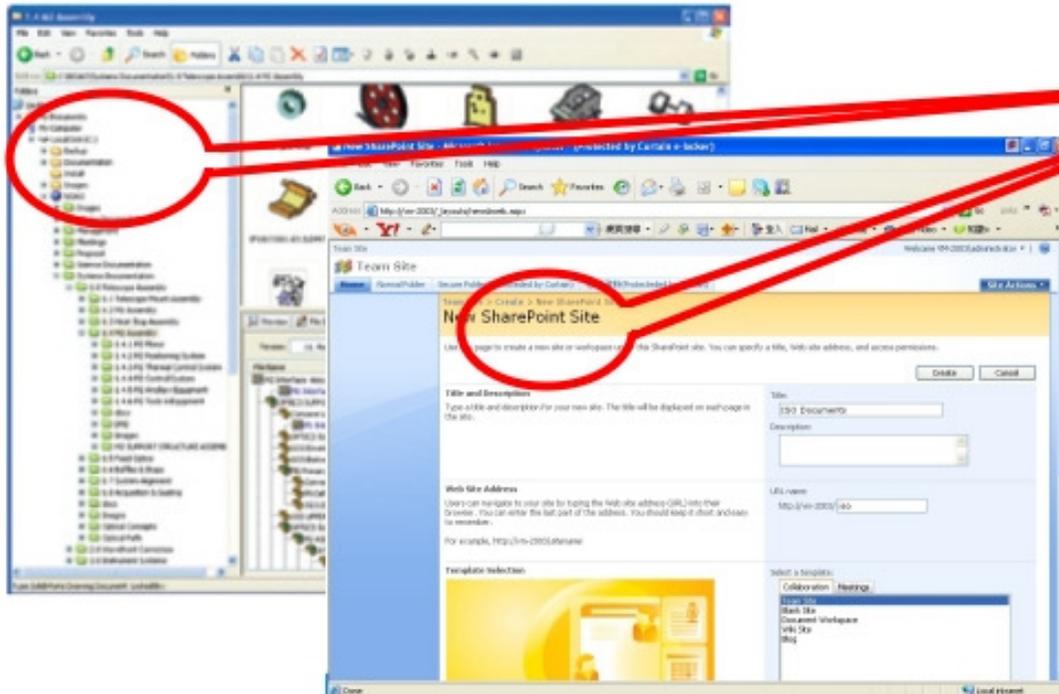
- 100 x Curtain office suite license
- 20 x Curtain universal license (cover all support applications)
- Curtain Protector for Windows file server (*only 1 license needed*)
- First year software maintenance & upgrade is included

# Secure information EVERYWHERE

Curtain in Konica Minolta DocNet (web based system)



Curtain in SolidWorks PDMWorks



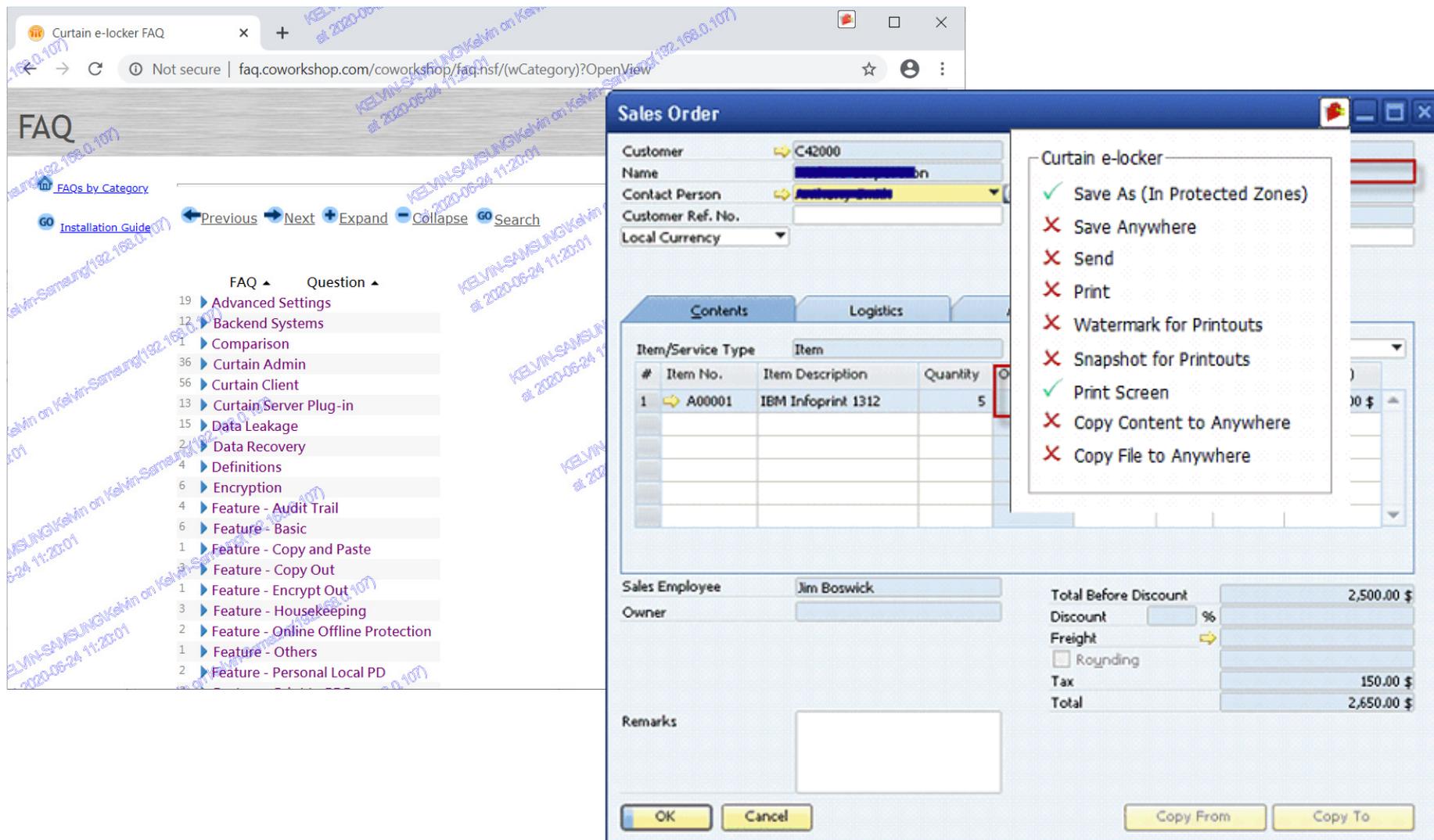
Curtain in Microsoft SharePoint

- Software Development Kit (SDK) is available
- Curtain e-locker can be used to secure third parties solutions or your self-developed system



# Secure Self-developed Systems

Curtain e-locker can be easily integrated with your own systems to secure the information, no matter it is web-based or legacy rich-client system



The screenshot shows a web browser window displaying a FAQ page on the left and a 'Sales Order' application window on the right. The 'Sales Order' window has a security context menu open over it, listing various actions that are either allowed or blocked by the 'Curtain e-locker' system.

**FAQ Page Content:**

- FAQs by Category
- Installation Guide
- Previous Next Expand Collapse Search
- FAQ Question
- 19 Advanced Settings
- 12 Backend Systems
- 1 Comparison
- 36 Curtain Admin
- 56 Curtain Client
- 13 Curtain Server Plug-in
- 15 Data Leakage
- 2 Data Recovery
- 4 Definitions
- 6 Encryption
- 4 Feature - Audit Trail
- 6 Feature - Basic
- 1 Feature - Copy and Paste
- 3 Feature - Copy Out
- 1 Feature - Encrypt Out
- 3 Feature - Housekeeping
- 2 Feature - Online Offline Protection
- 1 Feature - Others
- 2 Feature - Personal Local PD

**Sales Order Window Content:**

Customer: C42000  
 Name: [Redacted]  
 Contact Person: [Redacted]  
 Customer Ref. No.: [Redacted]  
 Local Currency: [Redacted]

#	Item No.	Item Description	Quantity
1	A00001	IBM Infoprint 1312	5

Sales Employee: Jim Boswick  
 Owner: [Redacted]

Total Before Discount: 2,500.00 \$  
 Discount: %  
 Freight: [Redacted]  
 Rounding  
 Tax: 150.00 \$  
 Total: 2,650.00 \$

Remarks: [Redacted]

Buttons: OK, Cancel, Copy From, Copy To

**Security Context Menu (Curtain e-locker):**

- ✓ Save As (In Protected Zones)
- ✗ Save Anywhere
- ✗ Send
- ✗ Print
- ✗ Watermark for Printouts
- ✗ Snapshot for Printouts
- ✓ Print Screen
- ✗ Copy Content to Anywhere
- ✗ Copy File to Anywhere

# Security challenges of CCTV footage

- CCTV Surveillance System is widely adopted
- More people concern about how CCTV footages are kept, stored and secured

**NATIONAL**

## Airport CCTV footages provide answers

Police say they're unaware of how the data is stored, but retired officials call it a security risk.



This video grab shows the situation at the airport. Shuvam Dhungana

Published at: January 19, 2020 | Updated

Two days after a singer posted a video of his "misbehaviour", CCTV footage of the airport was swiftly shared on social media, asking singer Astha Raut to take responsibility. The singer follows the order but looks angry. The exchange between the policeman and the singer is shown in the video.

**SOUTH**

## CCTV footage from Thai prisons on Youtube live

Published 1 month ago on Dec 1, 2019  
By The Thaiger



It's no secret that Thai prisons are overcrowded, hot, unsanitary. Even the notorious Bangkok Hilton earned the name 'Bangkok Hilton' because of the conditions.

COMMUNITY & EDUCATION HONG KONG **LAW & CRIME**

## Privacy Commissioner: Education University violated regulations in leaking CCTV images during poster controversy

20 September 2017 16:00 · Karen Cheung · 3 min read





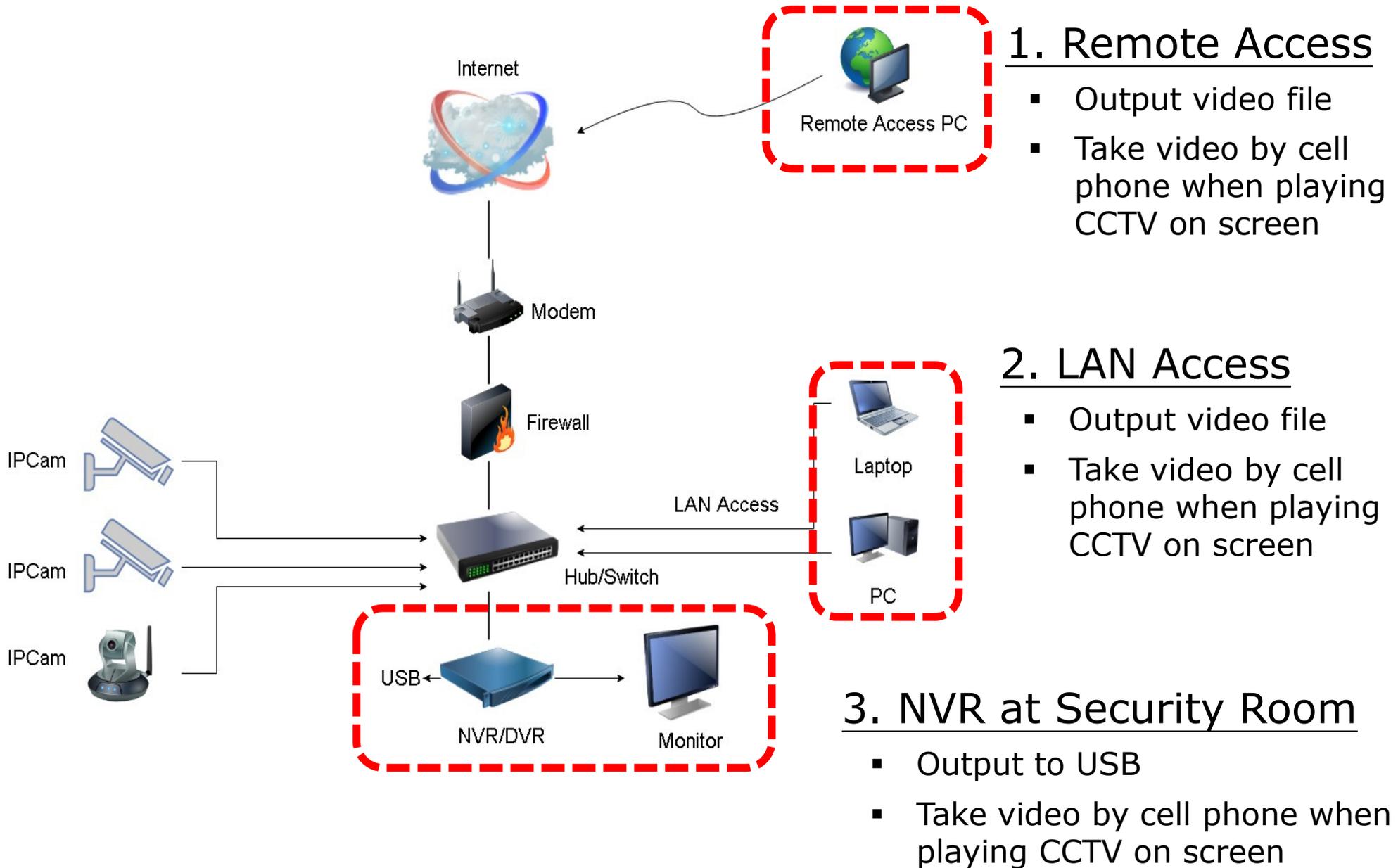




The Privacy Commissioner for Personal Data has said that the Education University violated privacy regulations when it leaked CCTV screenshots earlier this month. The images appeared to show the individuals who posted slogans on campus "congratulating" education deputy Choi Yuk-lin over the death of her son.

After the messages appeared, EdUHK President Stephen Cheung said that the school was using security camera imagery to identify the responsible parties. A few hours after his statement, a CCTV screenshot leaked online of two men sticking up pieces of paper on the student union's Democracy Wall. The university later said it strongly regretted the leak and would notify the Privacy Commissioner for Personal Data of the incident.

# Security challenges of CCTV footage



## 1. Remote Access

- Output video file
- Take video by cell phone when playing CCTV on screen

## 2. LAN Access

- Output video file
- Take video by cell phone when playing CCTV on screen

## 3. NVR at Security Room

- Output to USB
- Take video by cell phone when playing CCTV on screen

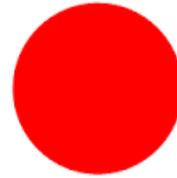
# Ways of CCTV leak



## Snapshot

With Curtain e-locker:

- Controlled by user's policy
- On-screen watermark with login user info



REC

## Take Video by Cell Phone

With Curtain e-locker:

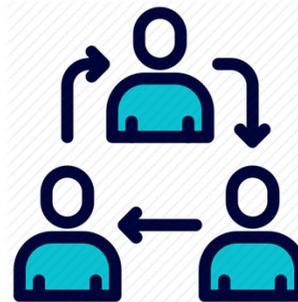
- On-screen watermark with login user info
- Prevent users to share CCTV video with public



## Export

With Curtain e-locker:

- Controlled by user's policy
- Can save/export, but ONLY in Protected Zone



## Distribute

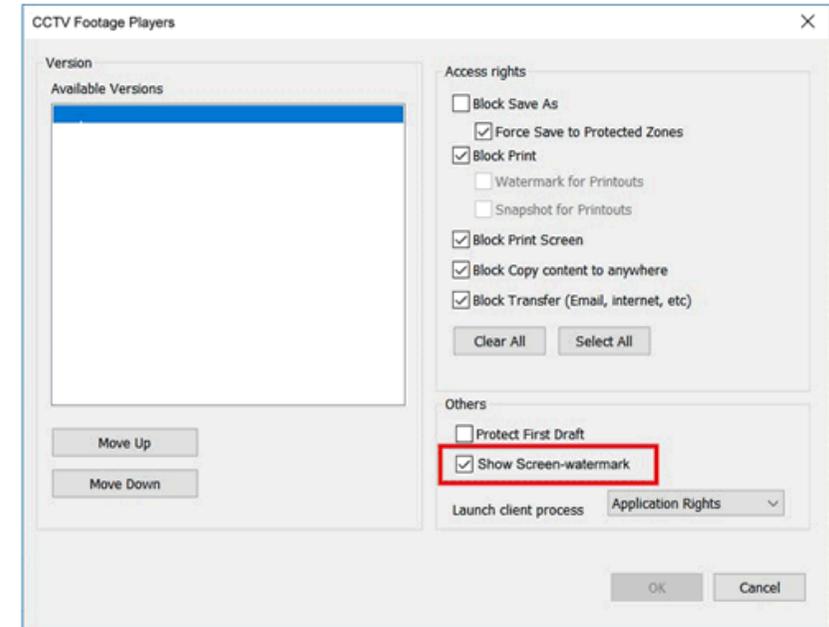
With Curtain e-locker:

- Controlled by user's policy
- Can share CCTV video in the company ONLY

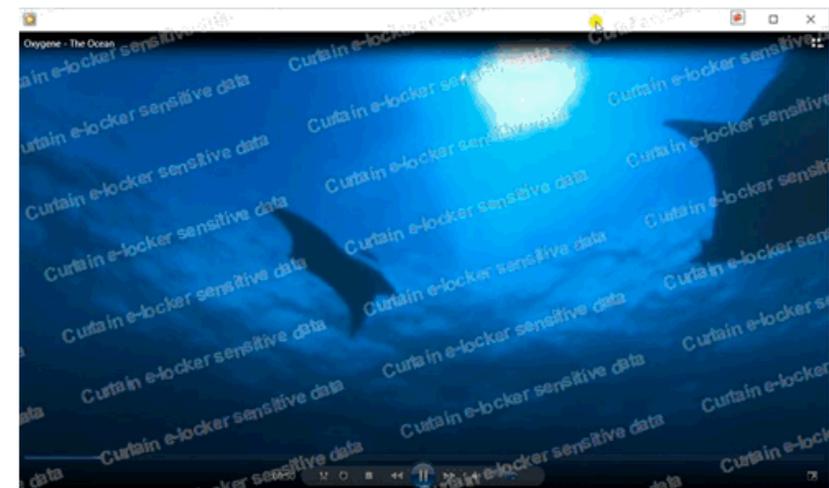
# Screen-watermark

- Enforce to show screen-watermark for some specific applications (e.g. CCTV players)
- Self-defined content of screen-watermark
  - Date / Time
  - User / Workstation
  - IP address
- Adjustable
  - Font color / size / style
  - Spacing
  - Transparency
  - Refresh interval
  - Display mode (tile or center)

Administrators can enable or disable Screen-watermark for CCTV footage players in this dialog box.



Once Screen-watermark is enabled, users under this policy group will see screen-watermark when playing protected CCTV footage files.



# Some of our customers

KADANT

DKNY

agnès b.

TSL | 謝瑞麟

 国泰君安证券  
GUOTAI JUNAN SECURITIES

 Tahoe  
泰禾人壽

 中銀集團保險有限公司  
BANK OF CHINA GROUP INSURANCE COMPANY LIMITED

 政府化驗所  
Government Laboratory

 地產代理監管局  
ESTATE AGENTS AUTHORITY

 利記集團  
LEE KEE GROUP

 Fujikon

 SUNLIGHT REIT  
陽光房地產基金

 SARASIN

 Vermeer

 首長國際企業有限公司

 UNIVERSAL UJDC  
Manufacturer Since 1949

 香港童軍總會  
SCOUT ASSOCIATION OF HONG KONG

## Some of our customers



## Some of our customers

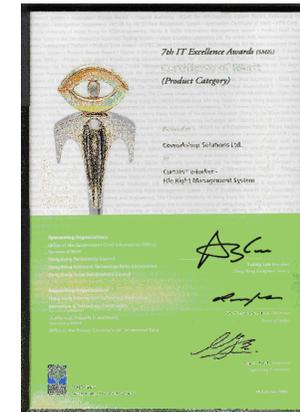


"... I love my Curtain e-locker software. And I am very impressed with how this company cares for my companies concerns. I would recommend this product to my friends. "

Mr. Jim Steen  
Owner of Move bumpers, USA

# Awards

## "IT Excellence Award"

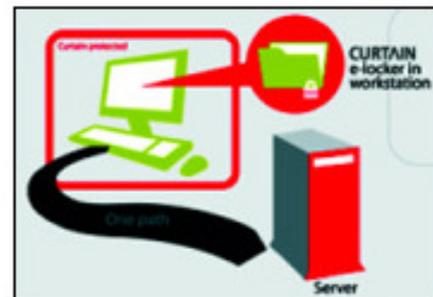


### Curtain™ e-locker - File Right Management System

Submitted by Coworkshop Solutions Ltd



Curtain™ e-locker is a File Rights Management system that prevents sensitive files from leaking out of an organization. Curtain™ e-locker allows users to access and edit such files by using native software such as MS Word, MS Excel, AutoCAD and SolidWorks but prevents printing, saving as, or sending the files to external sources such as floppies, USB disk, CD-R/RW or Internet mail.



### Judges' Comments

"An interesting software solution, allowing files to be uploaded only back to the server or document management system they were downloaded from."

## Asia Finalist in the Best Security of the GSC 2010

GLOBAL SECURITY CHALLENGE



### Awards & Quality Certificates

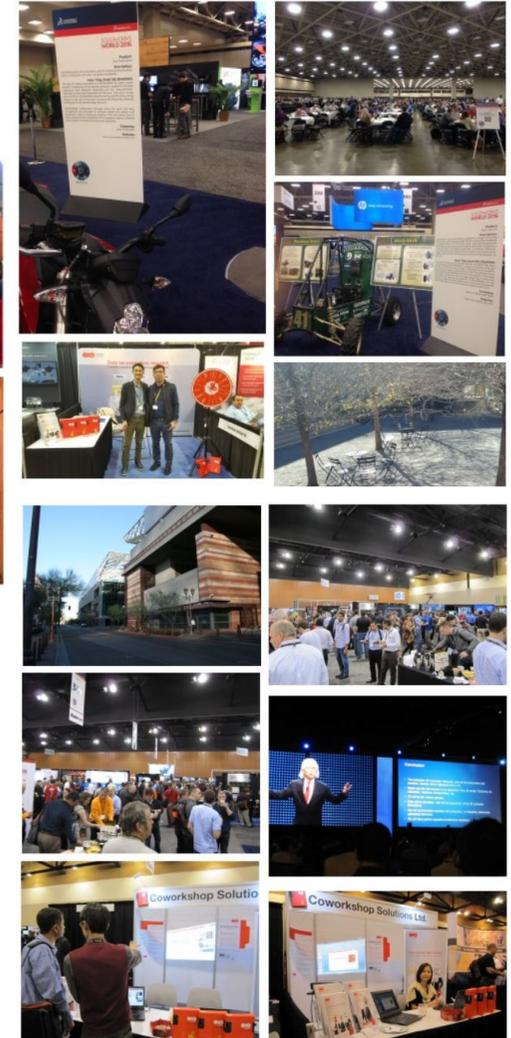


# Partners

Over 100 resellers and partners around the world



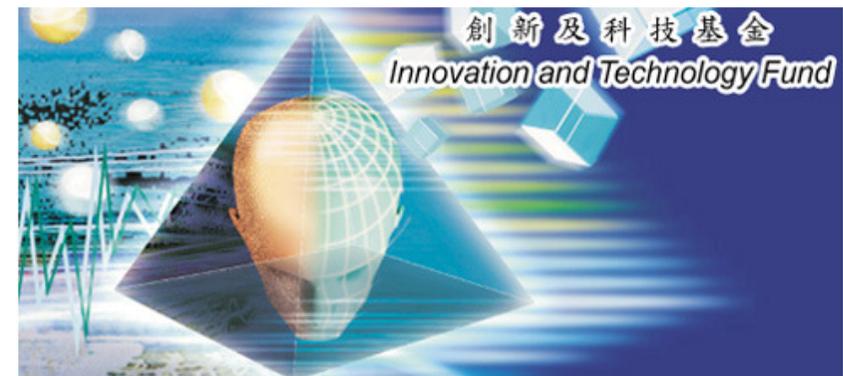
- Seminars and Exhibitions



- SOLIDWORKS Solution Partner

# About Coworkshop

- Coworkshop was established in 2001.
- Office in Hong Kong and ShenZhen
- Awarded in 2001 by Hong Kong Science and Technology Parks (HKSTP) to be a member of the Incu-Tech Program.
- Supported by the Hong Kong Government – Innovation and Technology Fund in the years of 2003 and 2004.



## Conclusion

Sensitive information can be leaked out of the company without your knowledge. When you know the leakage, it is already too late.



Let Curtain e-locker  
protect your valuable  
information!!!

# Thank You

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[www.coworkshop.com](http://www.coworkshop.com)