# Curtain e-locker
## Data Loss Prevention

We safeguard your information!

# Agenda

CURTAIN – Security challenges

- CURTAIN – How we safeguard your information

- CURTAIN – Deployment

# Data leakage incidents



**Cathay Pacific Says 9.4 Million Affected by Data Breach**

Airline's Five-Month Delay Before Public Disclosure Raises Concern

Jeremy Kirk (jeremy_kirk) · October 25, 2018

**See Also:** Securing Organizations from Remote Desktop Protocol Exploits

Hong Kong-based airline Cathay Pacific says the personal details of 9.4 million passengers were inappropriately accessed in March, a breach that was confirmed by the company in early May but only publicly revealed on Wednesday.

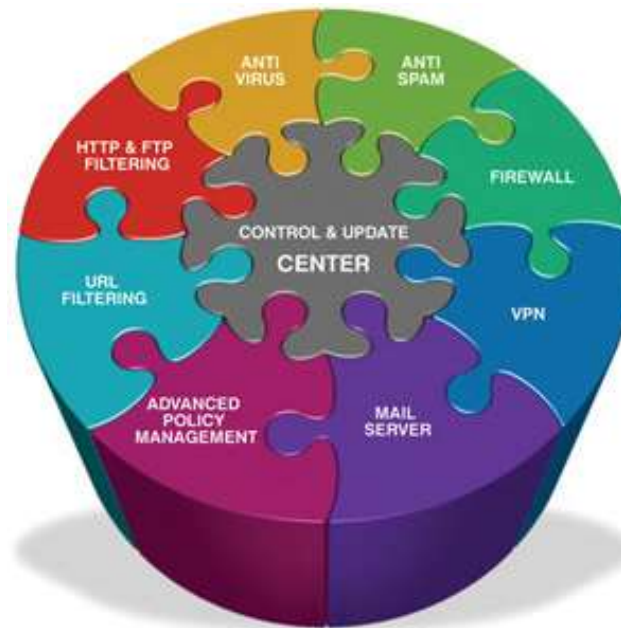# Security challenges

**Multiple Layered Security Control**
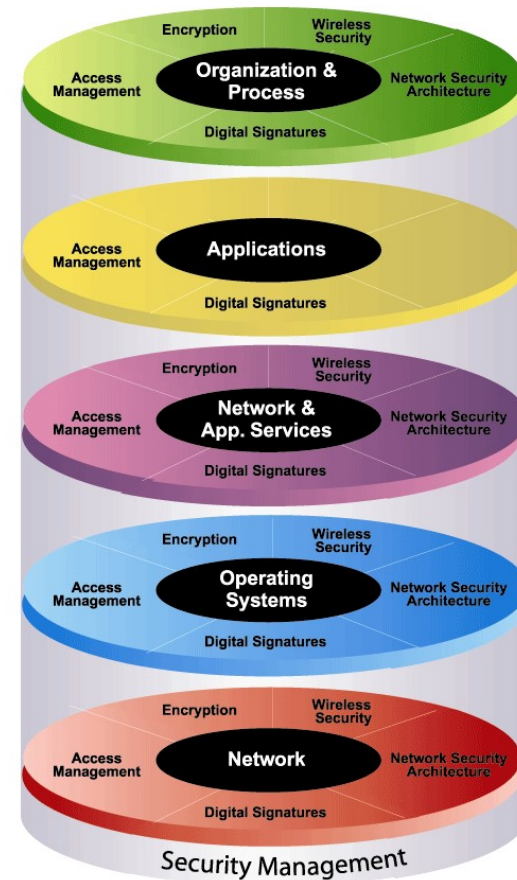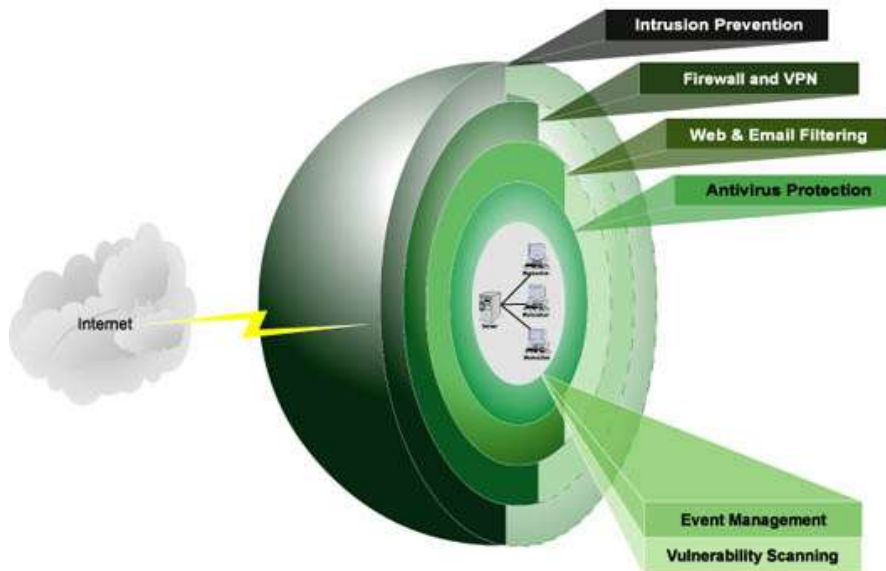


▪**Perimeter-based** security solutions: Intruder Prevention, Firewall & VPN, Web & Email Filtering, Antivirus , Anti-spam.
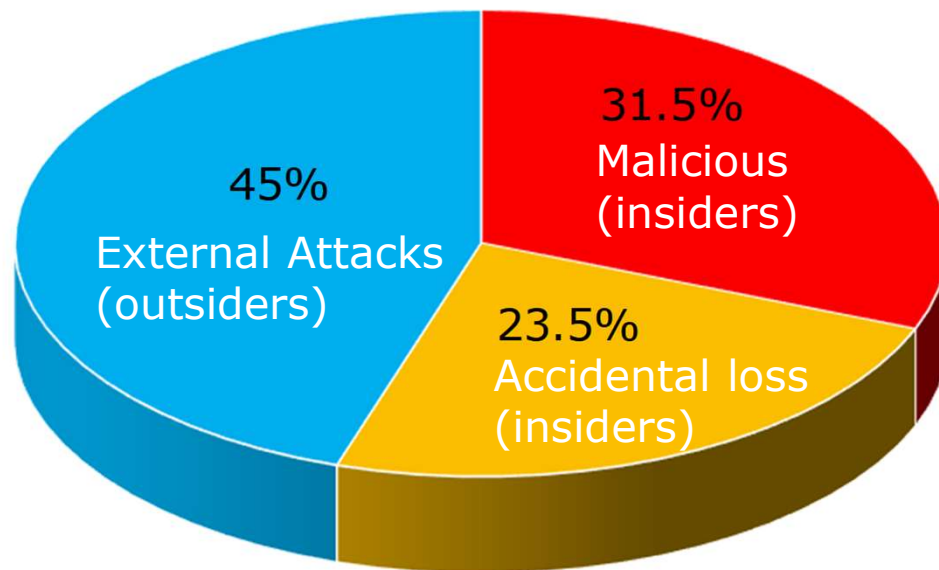
# Security challenges

**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)**



45%
External Attacks
(outsiders)

31.5%
Malicious
(insiders)

23.5%
Accidental loss
(insiders)

- 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



30% Current employees

28% 26%
Former employees 2016 2017

26% 23%
Unknown hacker 2016 2017

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

The panel included (left-to-right): Martin Sugden (Boldon James); Carl Leonard (Forcepoint); Jeremy Wittkop (InteliSecure); and Stuart Sumner (Computing)

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.
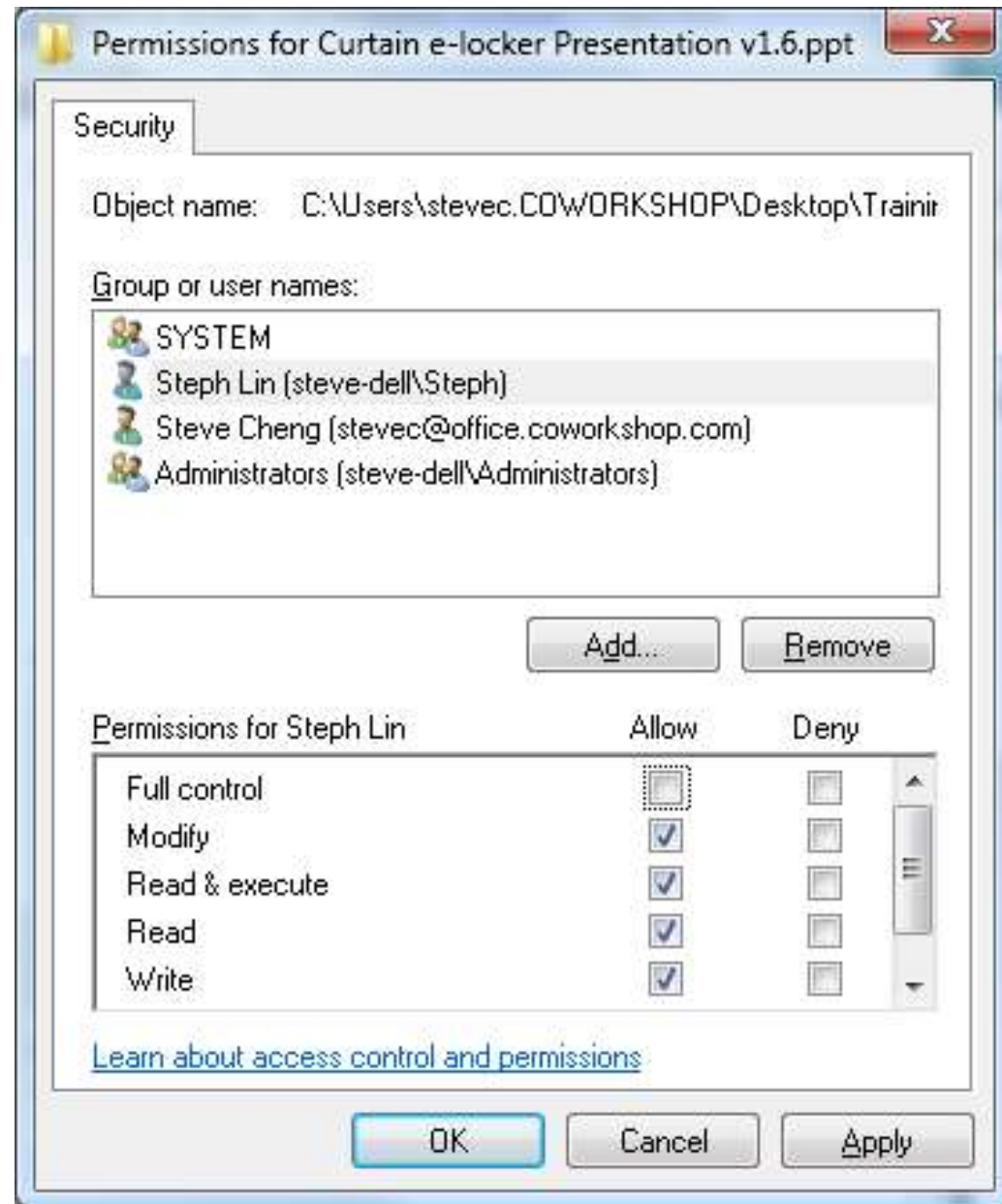
# The problem

Once users get READ rights, they can…

- **Print**

- **Print screen**

- **Save to USB disk**

- **Copy to mini PC**

- **Copy & paste**

- **Email**

- **WhatsApp, Skype, WeChat**

- **Upload to Dropbox, FTP**

- **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

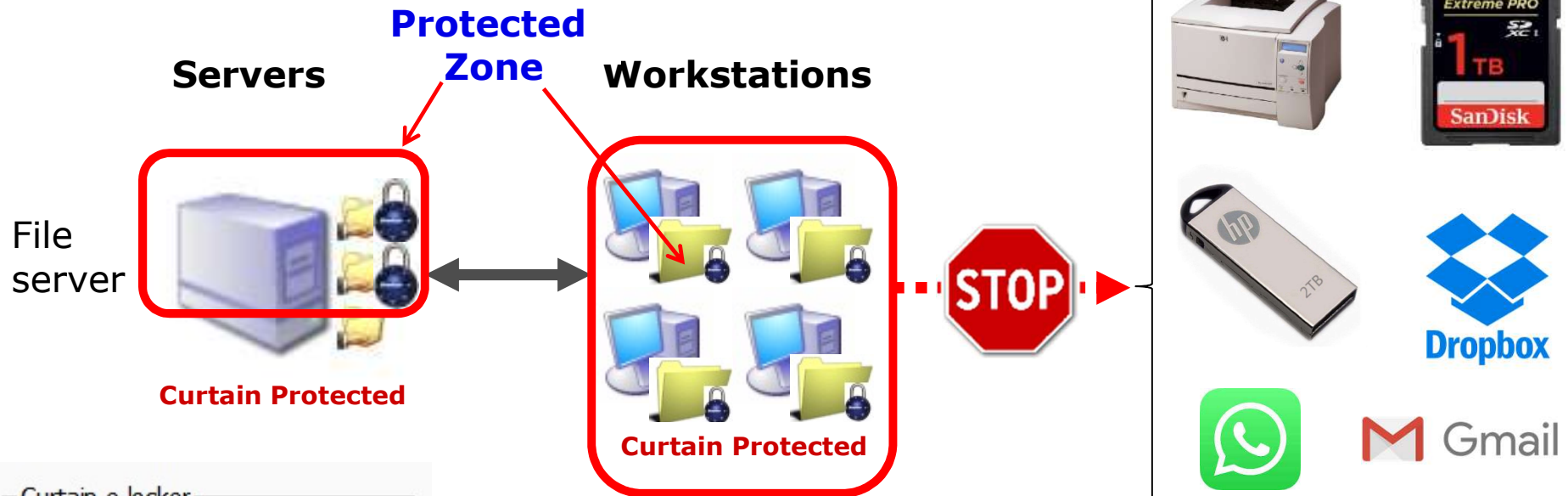## It changes "Uncertainty" to "Company Practice"

### File Rights:

- control **Save Anywhere**

- control **Send**

- control **Print**

- control **Print Screen**

- control **Copy and Paste out**

- control **New Document**
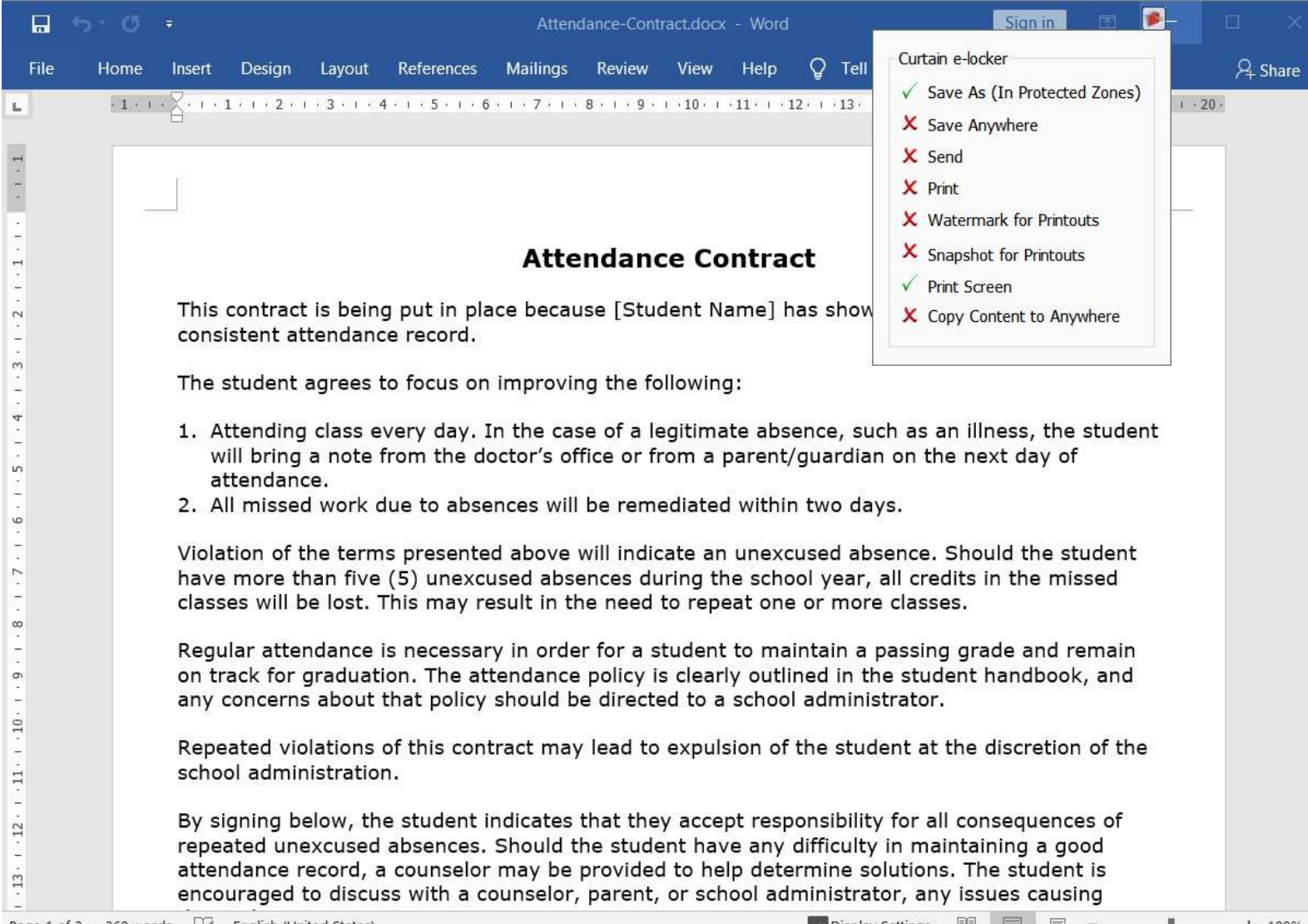
CURTAIN

CURTAIN
Secured e-locker
in workstation

# Architecture



**Servers**

**Protected Zone**

**Workstations**

File server

Curtain Protected

Curtain Protected

STOP

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

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

# How it works?

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

# Curtain e-locker with SOLIDWORKS

# Curtain e-locker with SOLIDWORKS EPDM

# 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.

| | | 5.6 MB | Microsoft Exce |
|---|---|---|---|
| PriceBook Dec2009.xls | **Open** | 24 KB | Microsoft Wor |
| Sensit | | 25 KB | Microsoft Wor |
| v4.do | Encrypt to (Decrypt anywhere) ▶ | 18 KB | TIFF File |
| 01300 | Encrypt to (Decrypt in Curtain only) ▶ | Desktop |
| 02300 | Zip... | Mail Recipient |
| 02300 | Zip to PriceBook_Dec2009.xls.zip | Browse... |
| ALLPA | | | |

- **Send the encrypted file to colleague**

report
1.xls.curtain

- **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.
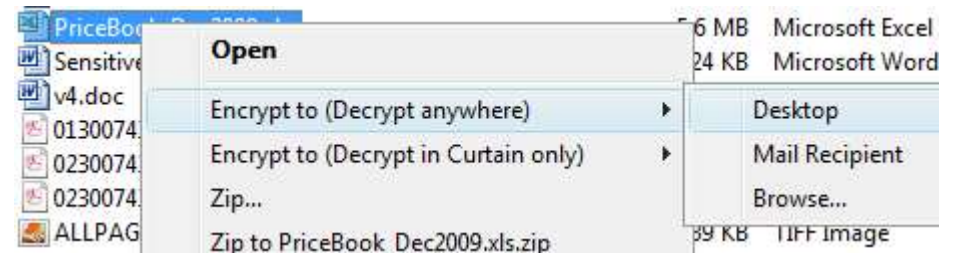
# Secure generation of PDF file

- **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.

Curtain e-locker
✓ Save As (In Protected Zones)
✗ Save Anywhere
✗ Send
✓ Print
✗ Watermark for Printouts
✗ Snapshot for Printouts
✓ Print Screen
✗ Copy Content to Anywhere
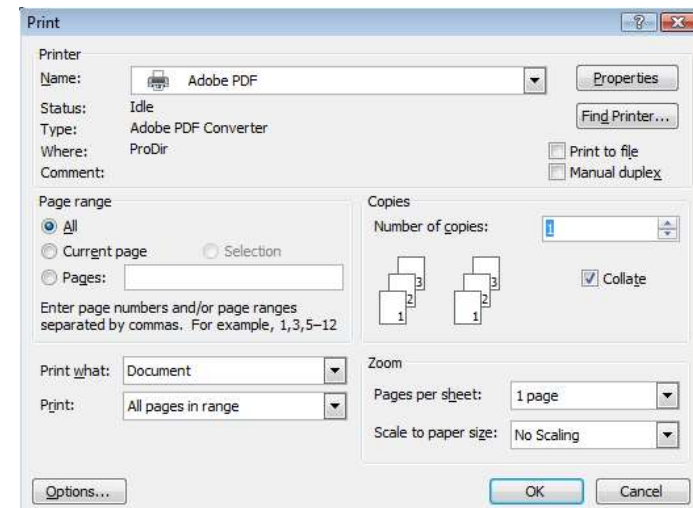
# User-friendly interface

- **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
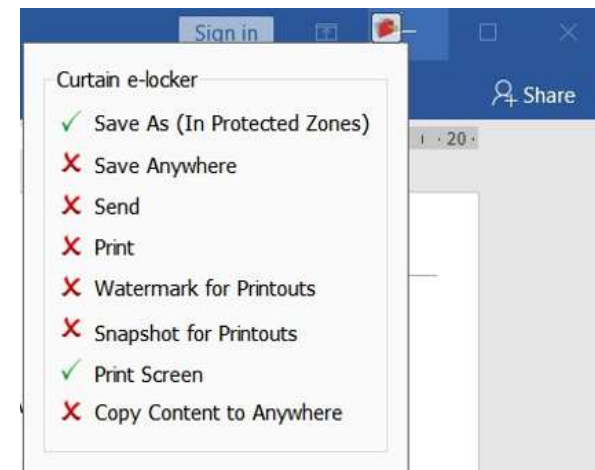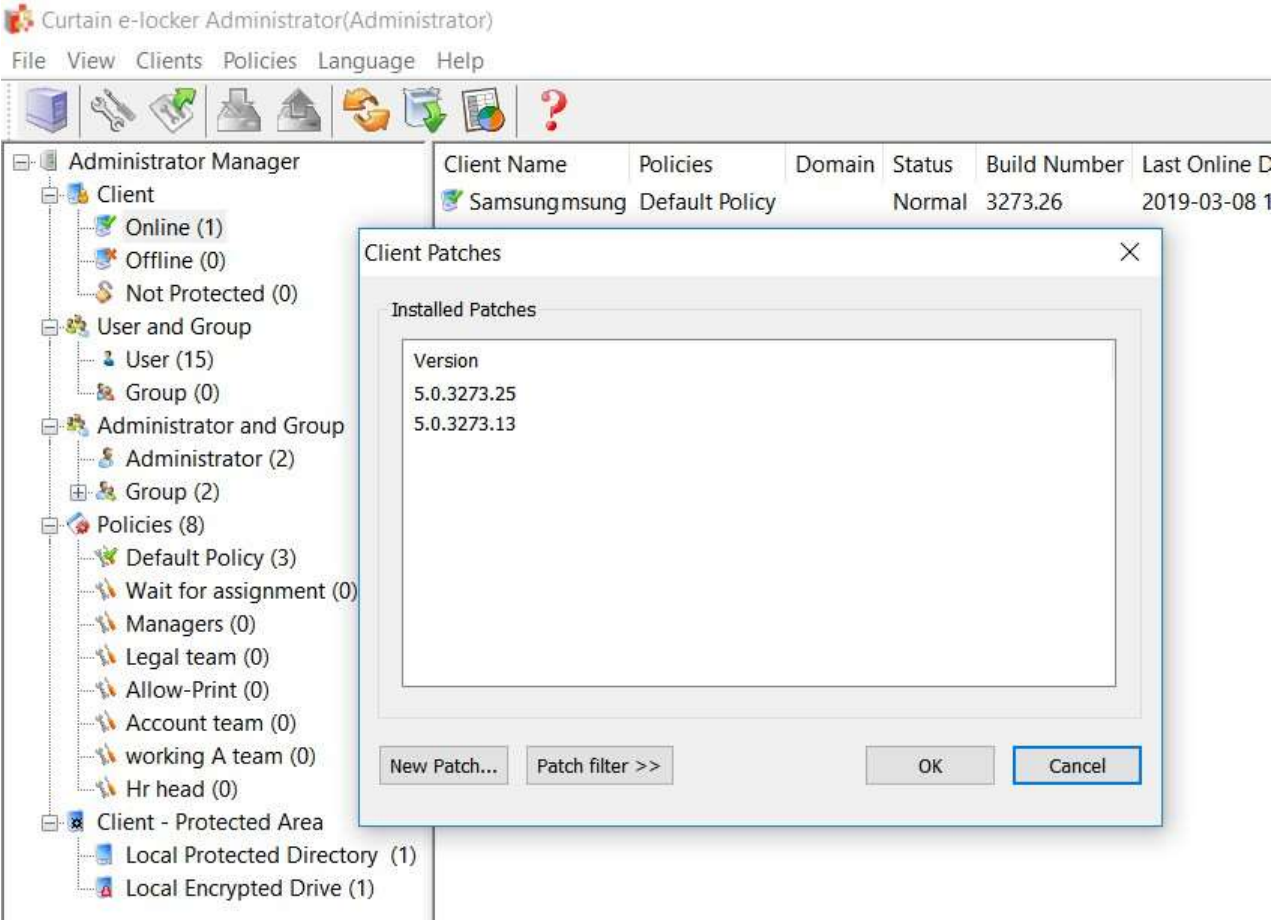
  

# Multi-lingual support

- **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.
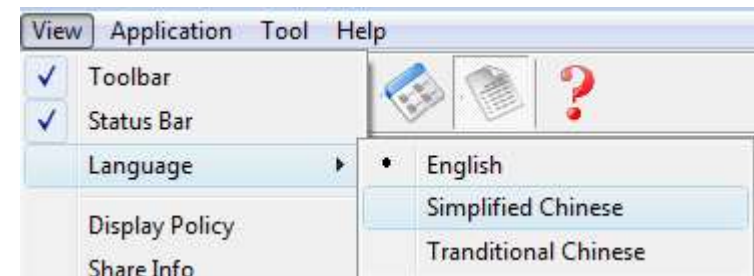
# Easy administration

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

# Housekeeping

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

# Central audit log

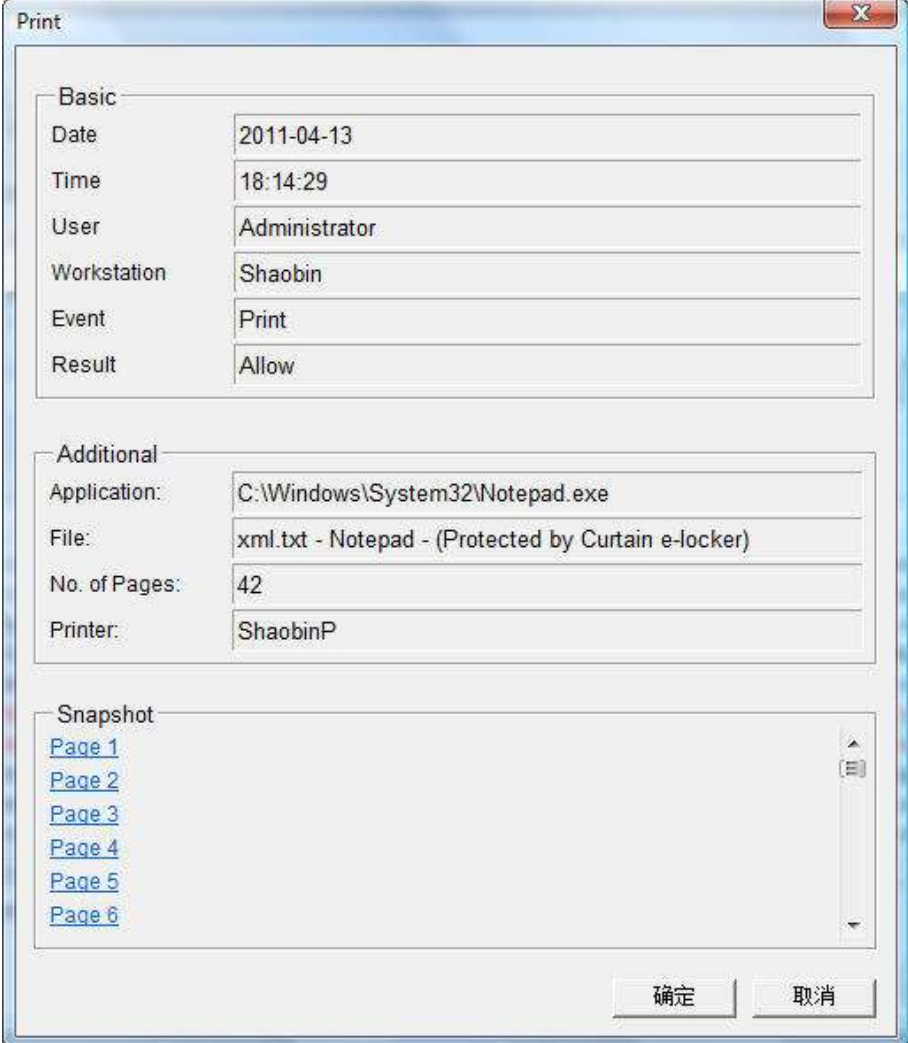- Central audit log is available in Policy server.  It logs activities to sensitive files

# 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

# 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
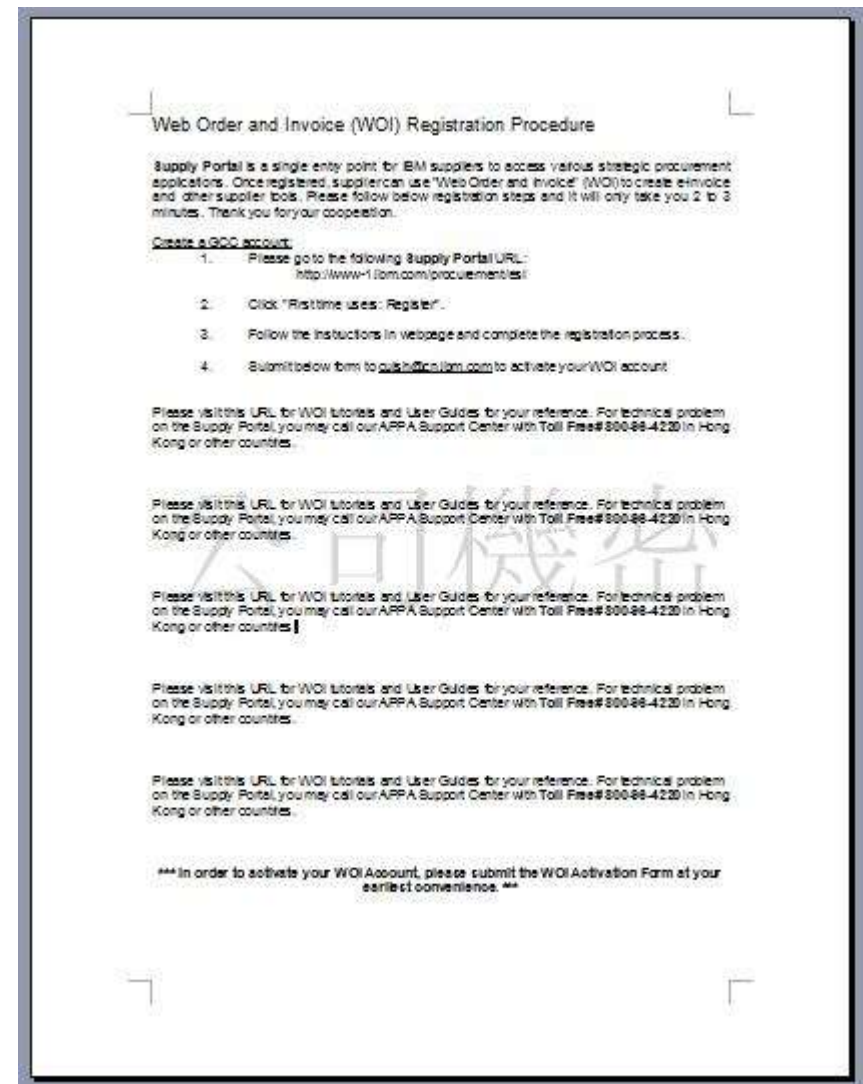
# Send request

- 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
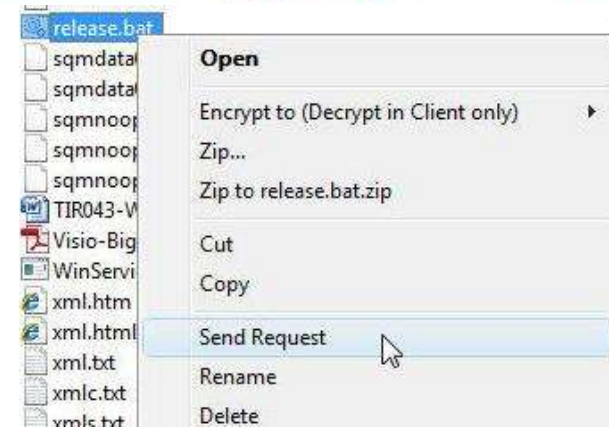
# Copy-out with declaration NEW

- 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
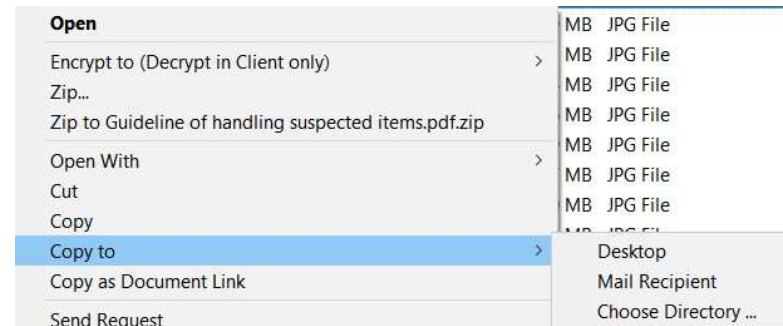
# USB token login

**NEW**

- 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

# Curtain Admin delegation NEW

- 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

Administrator and Group
- Administrator (3)
- Group (3)
  - Administrator Group (3)
  - PolicyAdmin (0)
  - LogAdmin (0)

Module

- Global settings
- Policies
  - Default Policy
  - Wait for assignment
  - Managers
  - Legal team
  - Allow-Print
  - Account team
- Client
- User and Group
- Client - Protected Area
- Administrator Audit Trail
- Client Audit Trail
- Administrator and Group

Permission

☑ View

☑ Modify

Module description
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

# Specific approver & printer  NEW

**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.
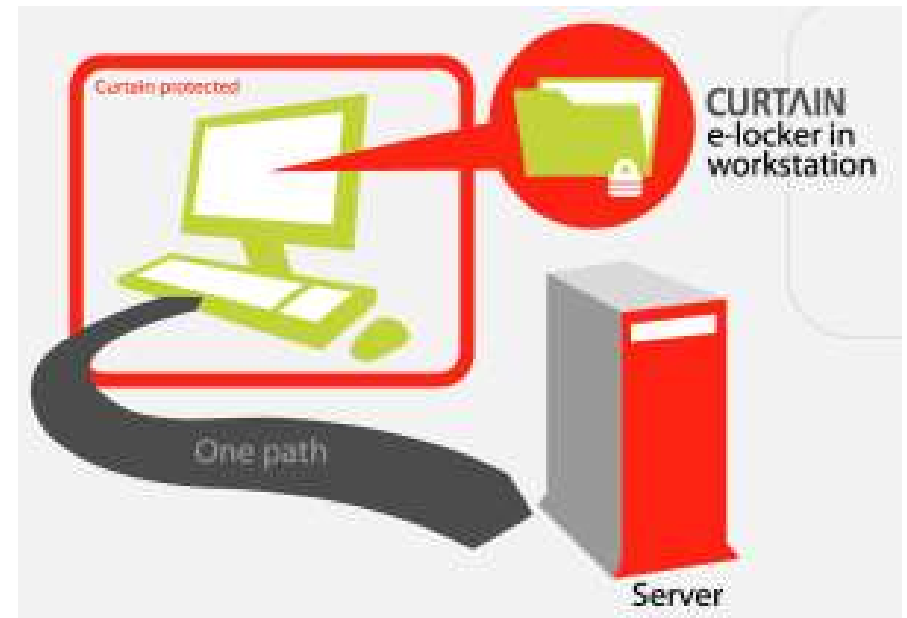
# Basic architecture

For example:



Curtain client

Curtain client

Curtain client

Workstations with Curtain client can access server protected directories.

Curtain server plug-in

**5 x File servers**

Curtain policy server
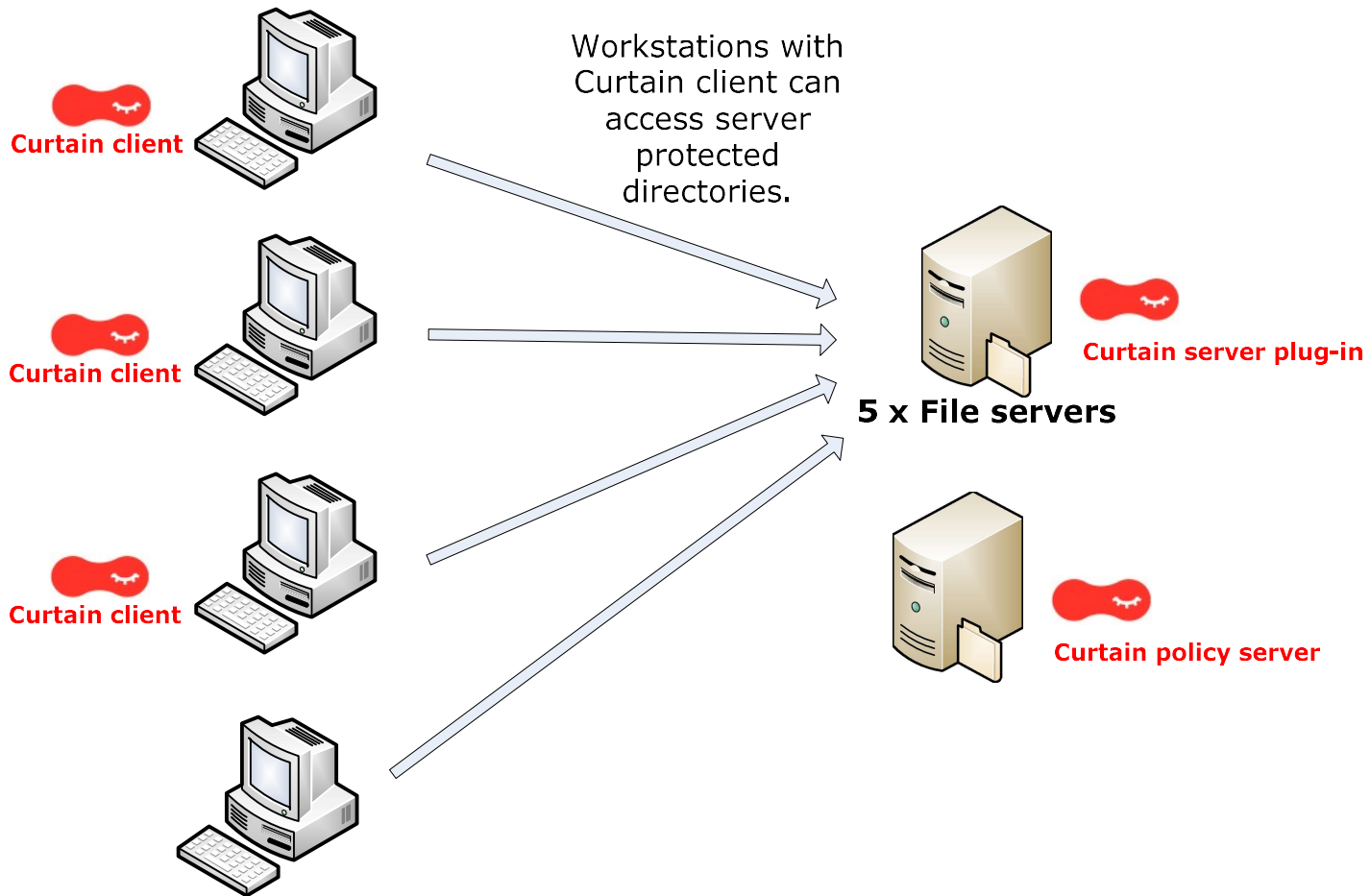
Workstation without Curtain client
can ONLY access non-protected server resources

# 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)
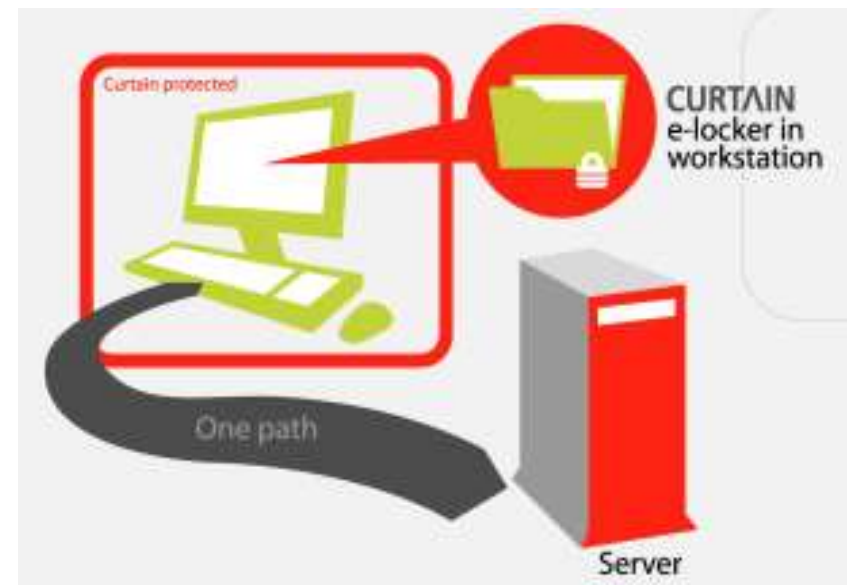- 200MB Hard Disk (in NTFS)
- TCP/IP network

## 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)
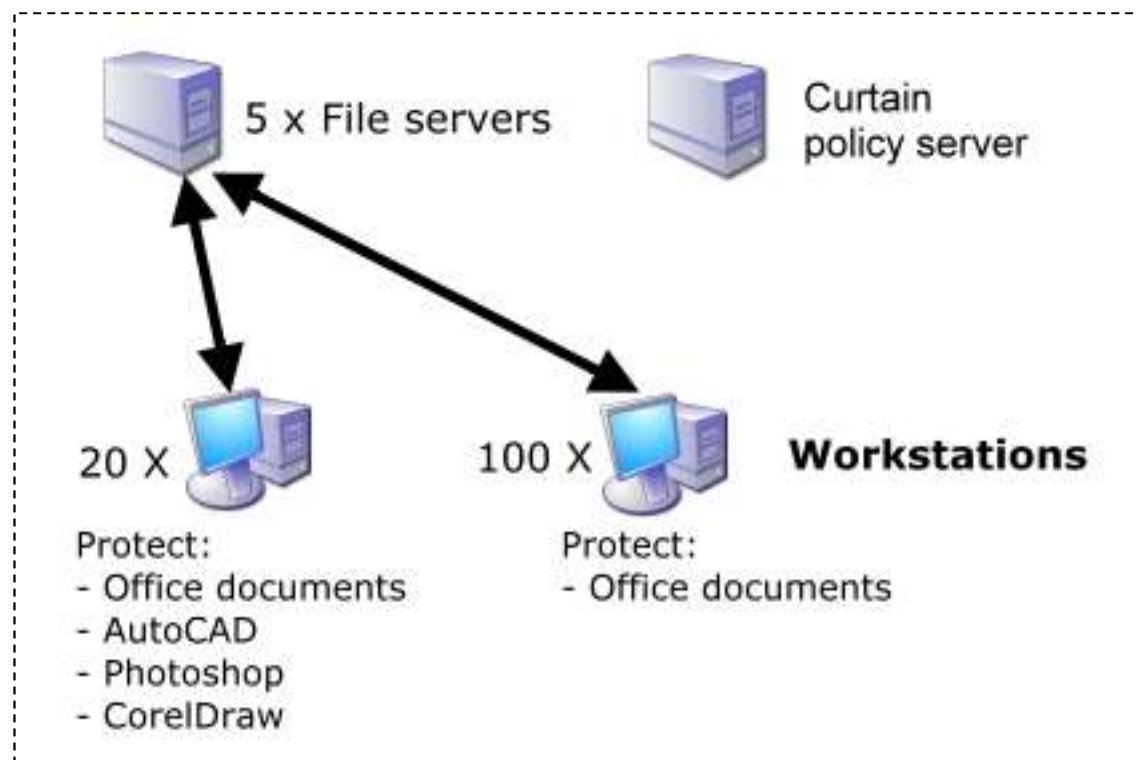- 200MB Hard Disk (in NTFS)
- TCP/IP network

# Pricing model

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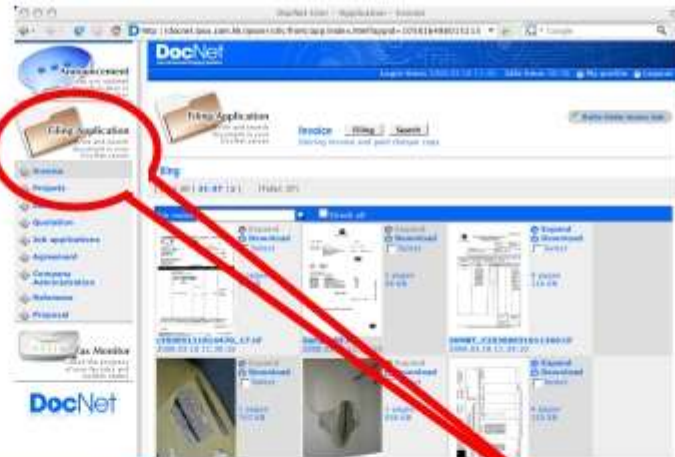
For example:



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
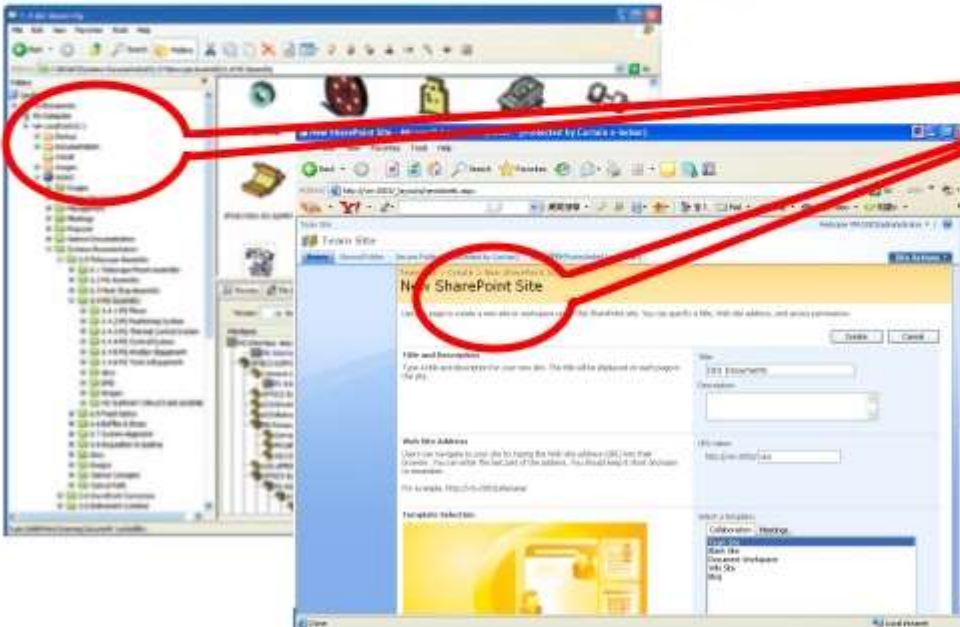
Curtain in Microsoft SharePoint

- Software Development Kit (SDK) is available

- Curtain e-locker can be used to secure third parties solutions or your self-developed system

# Architecture
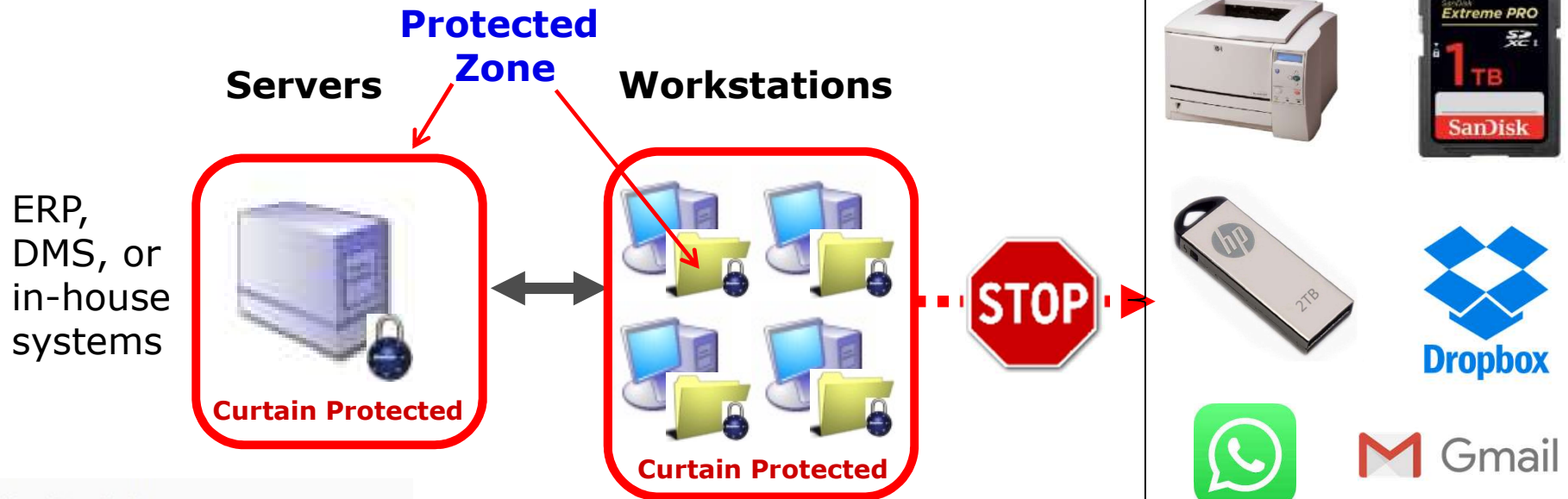
**Servers**     **Protected Zone**     **Workstations**

ERP, DMS, or in-house systems

**Curtain Protected**

**Curtain Protected**

STOP

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 connect to protected backend system. A local protected directory will be created.

- ▪ Backend system is protected

- ▪ Only secure client can connect to protected backend system

- ▪ All unauthorized actions are prohibited

# Some of our customers
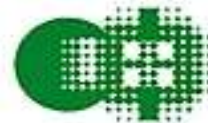
# Some of our customers

# 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.
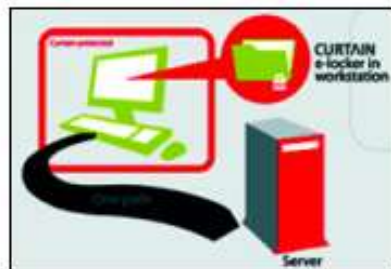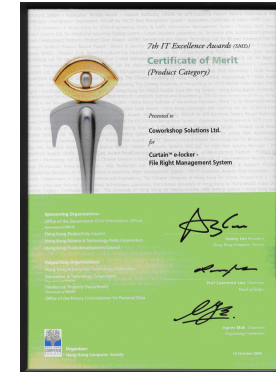
**Judges' Comments**

"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

Rising Star 2017 Award
Awarded by FinancesOnline

Great User Experience 2017 Award
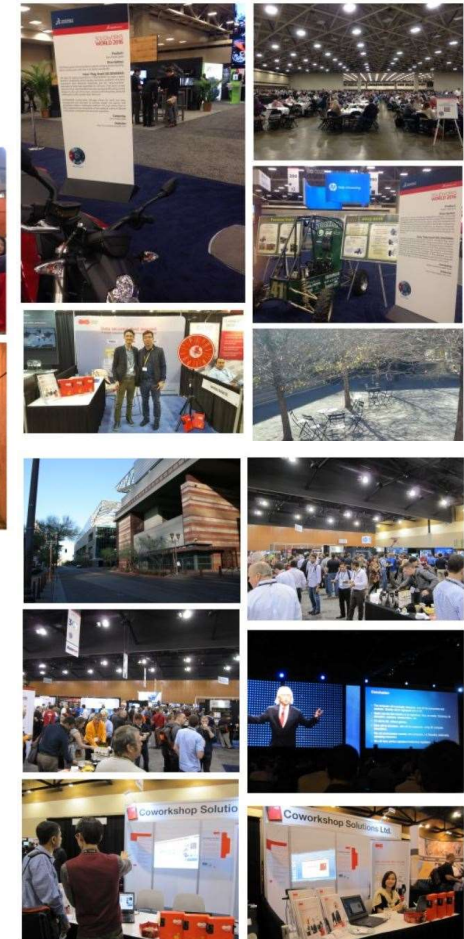Awarded by FinancesOnline

# 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

www.coworkshop.com