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Cydex Enterprise 3.0

All you need for managing complex files transfers

Cydex Enterprise 3.0

Cydex is an enterprise-class file transfer platform based on the Caton Engine. With transmission speeds of up to 400 times faster than traditional solutions, Cydex breaks through the traditional bottlenecks in sending large files anywhere they need to go.

Featuring advanced user management, security and workflow automation, Cydex provides a secure and fast way for your organization to share files, all with the ease of sending an email.

Cydex transfers files without limitation on size and type, from a simple text file to massive 4K video files. Cydex optimizes CPU and bandwidth performance to provide the fastest and most secure file transfers possible.

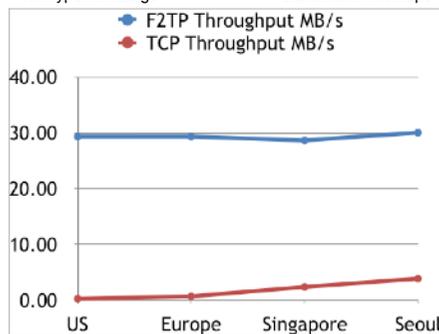## Fast File Transfers - The Caton Engine

Cydex is a suite of server and client applications that accelerate file transfer speeds hundreds of times faster than FTP. Utilizing Caton's proprietary Caton Engine for file transfer technology, Cydex overcomes the limitations created by high network latency and packet loss.

Based on powerful, optimized protocols that work transparently over existing networks, the Caton Engine gives users a simple, easy-to-use interface for moving data files and streams around the Internet. These protocols use adaptive algorithms and real-time monitoring of network conditions to ensure the best possible Bandwidth Utilization Rate (BUR) regardless of line latency or quality.

caton Engine
F2TP **For File Transfer**
Fast File Transport Protocol

File transfer through put between cloud

VM Type: m4.Large   Bandwidth: 400Mbps

F2TP Throughput MB/s
TCP Throughput MB/s

40.00

30.00

20.00

10.00

0.00

US   Europe   Singapore   Seoul

Test performed by Caton in June 2018

Based on the foundations of Caton's R2TP Engine, F2TP brings the power and scalability of the Caton Engine to managed file transfers. F2TP provides highly accelerated, enterprise-class file transfer with end-to-end security.

Traditional file transfer technologies such as FTP were never designed for long distance transfers such as the cross-border and cross-continent demands of today's Internet. Caton's F2TP provides best-in-class optimization of data links for point-to-point and point-to-multipoint regardless of file size or bandwidth. Internal optimization algorithms provide for maximum throughput on any network connection, even through highly managed firewall infrastructures.

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Unlimited File Size Transfer

Cydex supports large file transfers with no file size limitation. You can transfer a terabyte file via Cydex just like sending an email. With Cydex, there is not only an increase in file transfer speed, but also the assurance in transfer success through integrity checking of the transferred file.

Auto Resume. Auto Recovery.

Cydex supports auto resume for the upload and downloading of files, allowing you to continue a transfer when you need to change your location. Cydex will automatically check the file and recover missing packets to ensure file transfer success.
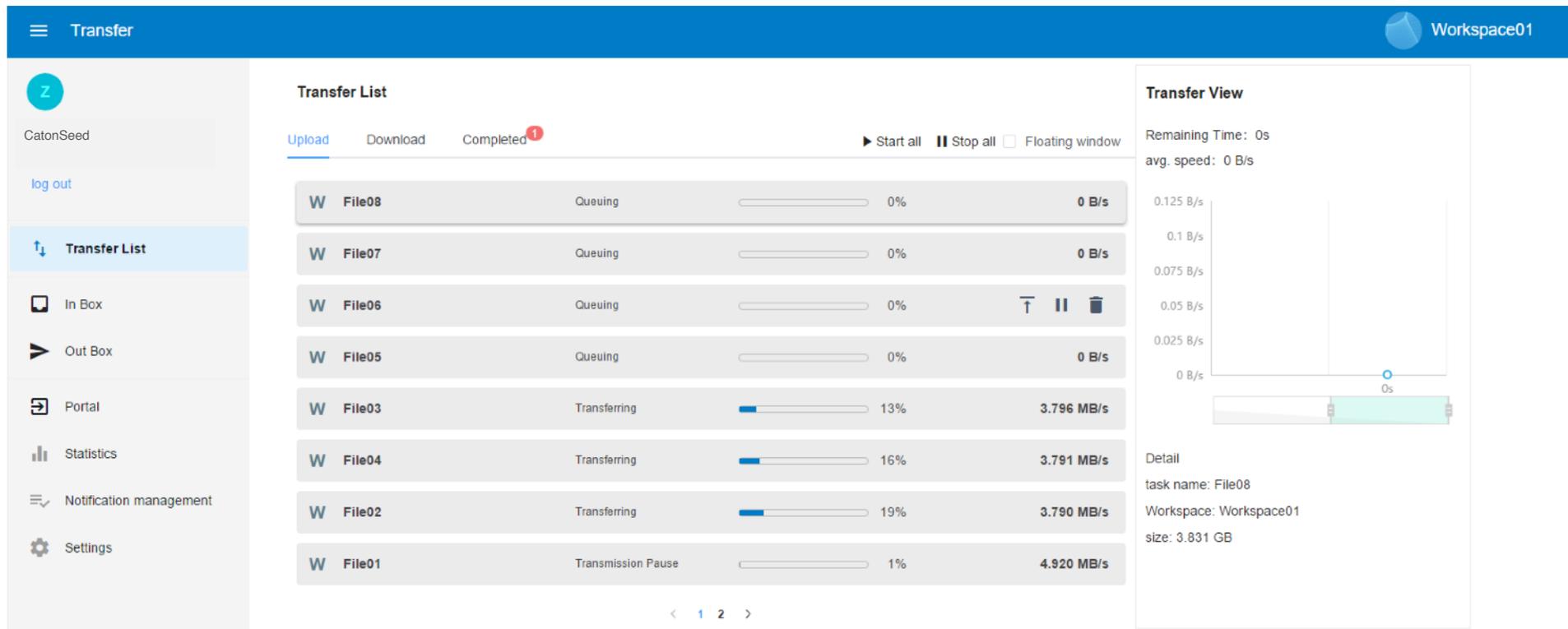
Simultaneously Upload and Download

Cydex supports the simultaneous uploading and downloading of files while other file transfers are taking place. This feature saves time as it allows multiple file transfers concurrently freeing the client up from waiting for one transfer to complete before executing another transfer.
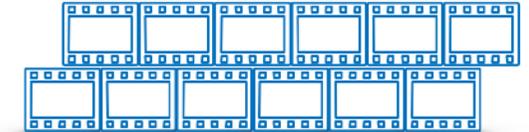
Optimized for Sequential Frames in Post Production

In Post Production, clients are faced with not only large files sizes but also large numbers of files to transfer including 3-D model files, composited, and rendered files. Cydex is optimized to manage both file size and file quantity to support the demands of today's post environments.

Transfer		Workspace01

Transfer List

Upload　Download　Completed ¹

Transfer View

Remaining Time: 0s
avg. speed: 0 B/s

CatonSeed
log out

▶ Start all　❚❚ Stop all　☐ Floating window

W	File08	Queuing	0%	0 B/s
W	File07	Queuing	0%	0 B/s
W	File06	Queuing	0%	
W	File05	Queuing	0%	0 B/s
W	File03	Transferring	13%	3.796 MB/s
W	File04	Transferring	16%	3.791 MB/s
W	File02	Transferring	19%	3.790 MB/s
W	File01	Transmission Pause	1%	4.920 MB/s

↑↓ Transfer List
▢ In Box
➤ Out Box
⊡ Portal
▮▮ Statistics
≡ Notification management
⚙ Settings

0.125 B/s
0.1 B/s
0.075 B/s
0.05 B/s
0.025 B/s
0 B/s
0s

Detail

task name: File08
Workspace: Workspace01
size: 3.831 GB

< 1 2 >

Multi-layer Security and Monitoring

Encrypted Control Commands

All control and management data is encrypted and connected via HTTP

Encrypted Data Streams

All transfers are secured by AES-256 encryption

Closed Account System

File transfers only allowed within the closed system

Data Slicing Storage

Every packet is individually encrypted, supporting better storage management

Designated Transfer Devices

Cydex can assign specified devices to connect and transfer through its management dashboard. Designated computers can be registered to the Cydex Server for a specific connection, as an extra layer of security for your high value data assets.

Progress Notifications

Cydex can setup email notifications for both the sender and receiver providing status updates including package creation, download activity, and finished transfer status. Both senderr and reciever have access to tracking status throughout the file transfer process.
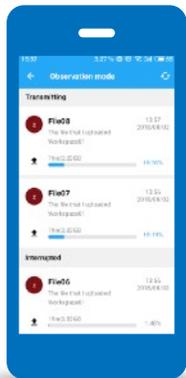
Cydex Mobile

The Cydex Client also integrates with iOS and Android devices, providing not only file transfer capability from a mobile phone or tablet, but also monitoring of the transfers status and completion.
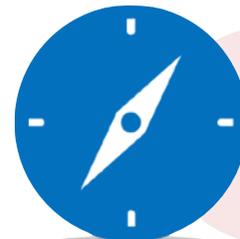
Web Browser and URL Link Support

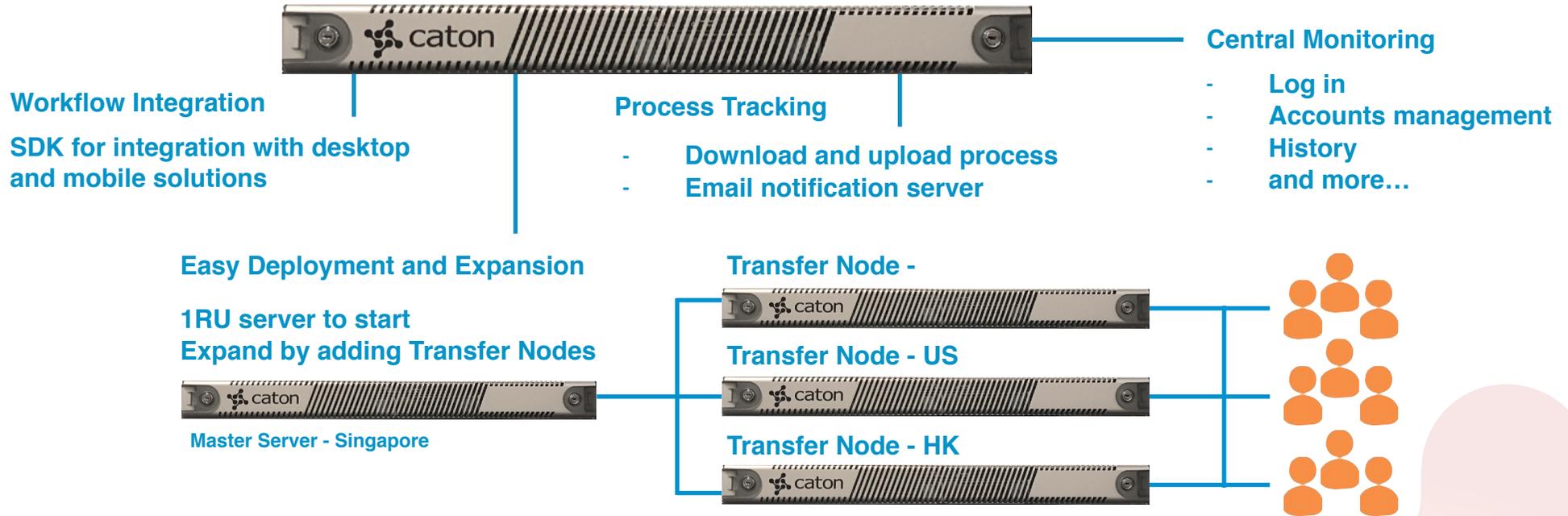Cydex file transfers can be run on any web browser and a URL link of a transfer can be sent via email. This allows the client to send files to others without giving out account information while providing the same UI and security level experience.

As Simple as Email

The Cydex Client was designed to provide the ease of an email with increased transfer speed and the ability to support both large and multi-file transfers.

Caton Cydex Server

Central Monitoring

- **Log in**
- **Accounts management**
- **History**
- **and more…**

Workflow Integration

SDK for integration with desktop and mobile solutions

Process Tracking

- **Download and upload process**
- **Email notification server**

Easy Deployment and Expansion

1RU server to start
Expand by adding Transfer Nodes

Master Server - Singapore

Transfer Node -

Transfer Node - US

Transfer Node - HK
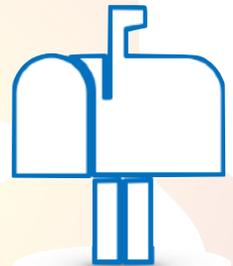
Bandwidth Management

For multiple projects and multi-user management, reporting tools capture usage and behavior and can be integrated with payment solutions.

Usage Report

For multiple projects and user management, reporting is the key to control the usage and priority. The report can be export for managing users' behaviours and integrate with payment systems.

Dashboard

The dashboard has been designed for administrators to manage multi-user, multi-workgroup usage as well as review both bandwidth and performance criteria.

Active Alert

The Cydex Servers active alert notifies and administrator of potential issues including low storage and/or permissions-based limits.

Technical Specifications

Desktop Client System Requirement	Dual core processors, each core 2GHz 2GB Ram Windows 7 or higher, Mac OSX 10.8 or higher (10.10 or higher is recommended) open internet address
Send by file or folder	Send file or folder to designated receiver
Download by file or folder	Support auto or manual download
Open download file	Preset download location and open downloaded files from application
Workspace management	Setup multiple workspaces, workspace working individually
Hide workspace members	Specific members in workspace can be hidden from others
Transfer list	Details for upload/download and completed transfers, start and pause any transfer
Sending invite and URL for download	User can send request for sending packages, download can be send as URL link
Usage report	View report on specific period of usage
Send multi notification via email	Email notifications for transfer, usage and other alert
Customize download directory	User can assign custom directory for download and sub directories for different senders.
Transferring protocol	Option to roll back to TCP when network permission not allowed
Multiple upload and download packages	User can send and receive multiple packages at the same time
Automatic sending (Portal)	Files or folder can auto send out after Portal is setup
Automatic sending (Portal) monitoring	Support monitoring of the files and folders being transfer through Portals
Automatic download	Support auto download files or folders
Scheduled transfer	Support setup for scheduled file transfer at specific date and time
Transfer monitoring	Support monitoring of download status from other end
Simultaneous upload and download	Support download while still uploading at the same time
Continue at break point	Auto or manual continue of download or upload when interrupted
Encryption while transfer	The entire transfer is integrated with AES-256 encryption
Optimized for small files	Optimized for small file less than 10MB
Transfer limitation	There is no limitation on file size or file numbers
Modify receiver after transfer	Receiver can be changed even after transfer, or adding files or removing items
Bandwidth assign	Bandwidth and transfer speed can be assigned to specific account
Multi-language UI	Client UI can be defined in setting, English and Simplified Chinese are supported
Multiple accounts management	Saved multiple login information for multiple servers and support automatically login
Help menu	Version, log, machine information for white list operation
Changing personal information	User can change name and other information, and upload profile pictures
Changing password	Client can change password after login

Mobile Client System Requirement	Android 5.0 or higher, iOS 8.0 or higher
Monitoring transfer status	Monitor transfer status on other devices with the same account
Usage report	View report on specific period of usage
Sharing on WeChat	Sharing the transfer file to WeChat at the same time
Send multi notification via email	Email notifications for transfer, usage and other alert
Send by file or folder	Sending photo or video files from mobile device
Receive file and folder	Receiving any kind of file, depends on storage on device
Transfer using Wifi	User can setup transfer only using Wifi
Transfer monitoring	Support monitoring on transfer status
Simultaneous upload and download	Support download while still uploading at the same time
Continue at break point	Auto or manual continue of download or upload when interrupted
Encryption while transfer	The entire transfer is integrated with AES-256 encryption
Modify receiver after transfer	Receiver can be change even after transfer, or adding files or removing items
Upload to server without designated receiver	Receivers can be re-assigned on server
Bandwidth assign	Bandwidth and transfer speed can be assign to account
Taking photo or video	Support access to built-in camera on device
Using Cydex with other APP	Integrated with iOS and Android, other APP can use Cydex for file transfer
Auto update	Support Auto of manual client update
Changing password	Client can change password after login

Server & Admin System Requirement	Dual core processors, each core 2GHz 2GB Ram CentOS 7.7 64-bit 7200rpm HDD with 40GB available space Fix IP open internet address
Usage dashboard	Overview on users, workspace and file on weekly/monthly basis. Storage and throughput report, usage of node and current activities.
File transfer management	Delete or modify files and receivers for all accounts
File transfer monitoring	Monitor file transfer status and speed for all accounts
Transfer nodes management	Manage transfer nodes by group
Dynamic increase transfer nodes	Dynamically increase transfer nodes and storage
Support matrix deployment	Matrix cloud deployment
Segment transfer settings	Upload and download at the same time
Segment storage	Segmented storage on multiple locations for higher security
Bandwidth usage	Speed optimization based on available bandwidth
Scheduled files removal	Server scheduling to manage rules-based file deletion
Email server	Direct email server support
Logging	Full logging for all accounts and server activity
White list management	Register designated receiver for special security login for sensitive transfer
Workspace management	Create, edit, delete workspace and managing the members and packages within workspace
Account management	Create and remove accounts, change passwords, arrange accounts by groups
Package reports	View and create report for all package transfer, export can based on time, workspace or accounts.

Caton Technology Corp.

Caton is a leading manufacturer of advance video encoding and Open Internet data transmission solutions. Reliable Real-Time Transport Protocol (R2TP) and Fast Files Transfer Protocol (F2TP) technologies enable secure, robust and easy-to-use data transmission for the broadcast and enterprise markets even in the harshest of network conditions. More information is available at www.catontechnology.com