

## PRODUCT DESCRIPTIONS

### CTERA Enterprise File Sync and Share (EFSS) - CTERA Overview

CTERA's Enterprise File Sync and Share (EFSS) lets state workers store and access their files with the convenience of the cloud so they can get to them anywhere on any authorized device, while providing all of the encryption and auditing layers a CSO or CIO requires to protect sensitive data. EFSS is a strong alternative for insecure, consumer applications such as DropBox

Below is a full description of CTERA's architecture that underpins File Sync and Share: performance, security and management, by combining scalable central management with smart end-point agents for PCs and mobile devices with Active Directory authentication, as well as branch-level NAS appliances that streamline data access using advance deduplication and encryption.

### CTERA Portal Server



#### CTERA Portal Server Datacenter Edition

CTERA Portal Datacenter Edition is a scalable management platform that allows enterprises to manage file sharing for branch offices and remote employees, with complete centralized control and minimal operational overhead. If an agency desires to use EFSS, a CTERA Portal Server is required, and Cloud49 can setup and manage that server. If an agency already has a CTERA Portal Server, then EFSS can be added to it without any additional Portal Server needs.

The CTERA solution is comprised of the following layers:

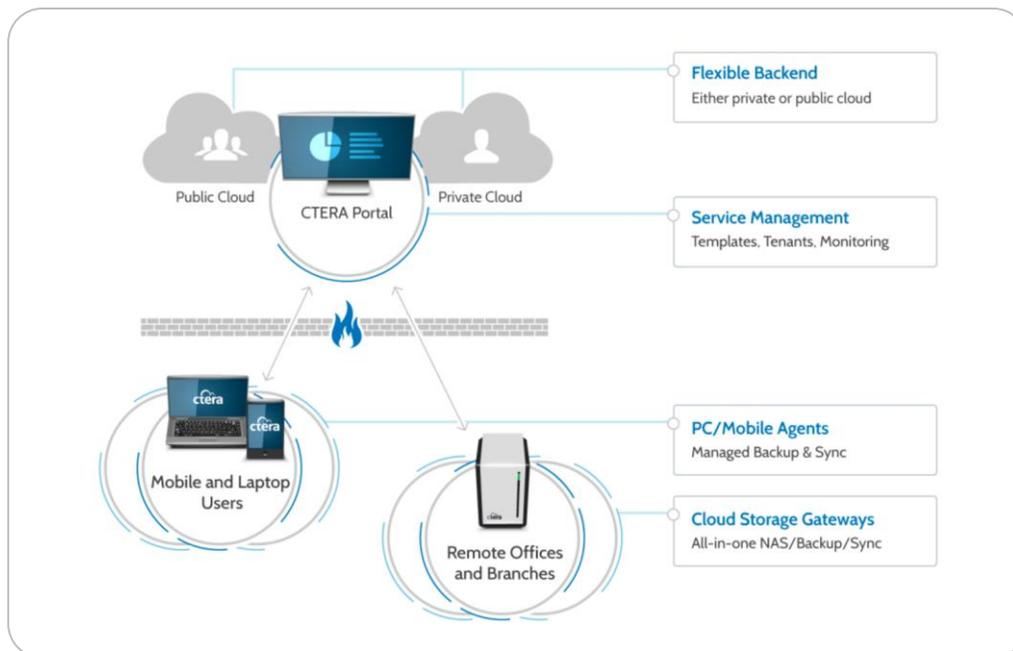
- **Datacenter Layer**  
Highly scalable backend storage and service provisioning software, for managing CTERA installation, hosted offsite backup and archiving. It can be delivered either as a Cloud49 hosted service over public cloud or as a private cloud installation at the enterprise datacenter. It can work in conjunction with existing storage infrastructure, and includes built-in mechanisms for high-availability and load balancing.
- **Network Layer**

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Network storage devices that support most common NAS/SAN interface (RAID, CIFS, NFS, rsync, iSCSI, AFP and Active Directory), act as a local backup server (end-point agent management, thin snapshots, scheduling) and integrate seamlessly over a WAN-optimized connection to the cloud using advanced deduplication, compression, and strong encryption.

- **End Point Layer**

Option between clientless Web/WebDAV-based access, and small-footprint managed agents for PCs and mobile devices. The agent extends the basic access function to add granular backup options (for files, applications or full disk image), leveraging Microsoft VSS for handling open files and applications (Exchange, SQL Server and Active Directory). The agent can connect either to the central cloud storage or to a CTERA branch-level NAS appliance (no hardware is required to use CTERA's File Sync and Share). The CTERA Agents are fully managed by remote and can be configured to perform automatic synchronization of the user's local folders to the cloud.



## Unique Advantages of the CTERA Solution

- **Scalable central management software (CTERA Portal)**
  - Template-based management that allows making group changes to user and appliance configuration en masse, including storage quotas, backup policies and software updates

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- Real-time monitoring and alerting on connectivity, backup failures, etc.
- Logging of system events (logins, failed logins, backups, errors) and extensive reporting
- Multi-tier user management, with full control over local user and administrator privileges
- Highly scalable solution designed for management of tens of thousands of hybrid appliances and agents
- Complete support for data encryption at rest and in transit
  
- **Choice of back-end cloud storage:**
  - Ability to deploy with either private or public storage infrastructure
  - Built-in connectors for EMC, IBM, AWS, HDS, OpenStack and others
  
- **Fully integrated collaboration:**
  - User-controlled e-mail invitation for read-only or read-write access
  - Branch-level projects feature that allows users to control access permissions to specific project storage locations
  
- **Fully integrated backup:**
  - Choice between user- and admin-controlled backup sets and restores
  - Automatic backup of appliance and agent configurations
  
- **Remote Office cloud gateway:**
  - Branch-level cloud storage appliance serving as a local file/backup server with automated, accelerated and secured cloud replication
  
- **Global de-duplication:**
  - Block-level de-duplication between data sets across all users
  - Reduction in bandwidth usage and in data volume stored in data center
  
- **Versioning:**
  - Admin-configurable retention policy for previous versions of files
  - User can easily roll back to previous versions
  
- **Secure Mobile access:**
  - iPhone/iPad/Android file access application
  - Active Directory authenticated over SSL
  
- **Active Directory integration:**
  - User authentication based on customer's Active Directory without leaving the intranet



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- Support for corporate Active Directory “forests” in CTERA Portal
- Ability to define virtual sub-portals that map to specific AD OU’s

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## End Point Solution Components

### CTERA File Sync & Share User

- Web-based and mobile access to files and folders stored on CTERA Portal
- Drive mapping and bi-directional sync agents for Windows 7, Vista, XP and Mac OS
- Email-based invitations to files and folders
- Option for customer-specific private Active Directory
- AES-256 encryption of data sent to the Portal w/ SSL tunneling
- Deduplication and compression
- Dynamic DNS for remote access to files
- Central policy-based management of agents and automated “push” upgrade of Agents

### CTERA Mobile App

- Remote access to local and cloud data from mobile devices using apps for iOS and Android
- Support for password protected cloud drives and data encryption
- Remote wipe for lost/stolen/de-authorized devices
- Local encryption of data

## CTERA Networks Corporate Background

CTERA is a leader in cloud storage enablement, with R&D based in Israel and offices in North America and across Europe. The company specializes in delivering solutions in 2 segments – cloud service providers and enterprise deployments for mobile workforce and remote branches.

CTERA’s technology is deployed at leading telco’s and Fortune 100 companies worldwide. CTERA has won numerous awards, received glowing product reviews and lauded by industry analysts as a leader:



*“Include CTERA when implementing an integrated private or public cloud storage environment to support branch offices and mobile users.”*

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**INFO~TECH**  
research group

*Cloud Backup Landscape, 2012: Champion & Trend Setter*  
*Recognized as the market leader in the cloud gateway market*

**451** Research

*"CTERA has secured some significant customer wins with large organizations, all of which validate the market in general and the company's approach in particular."*

Ptak / Noel

*"By combining on-site data protection appliances with a flexible cloud-based back end, CTERA is leading the cloud market in a whole new direction."*

**NETWORKWORLD**

*"CTERA takes it a step further by making it possible to establish an account on the CTERA portal and have your C200 synchronize with CTERA's online backup service. This is all extremely easy to set up and manage, making it usable by organizations with limited tech support."*

## PRODUCT DESCRIPTIONS Continued

### Cloud49 Microtask Surveillance

Microtask Surveillance is a software product that allows extremely high volumes of surveillance data (such as motion-triggered photographs from the State border) to be tagged with key, relevant data that only a human can provide (e.g., “Is that a person or a shadow I see in that picture”) and then returned back to the originating agency for appropriate action (e.g., archive the photo, versus send out the Border Patrol).

Alegion, a partner of Cloud49, has developed a task workflow automation software layer that rests on top of Amazon’s Mechanical Turk workforce of 600,000+ micro-task workers. Originally, these workers focused on cataloging Amazon’s massive e-commerce catalog of products. Over time, Amazon opened up the pool of workers to outside, commercial use. A common example of using crowd-sourced labor would be an online photography website who needs to post tens of thousands of pictures to their website, and needs a person to tag key concepts onto the image.

Alegion has developed a SaaS tool that takes a company’s data (e.g., pictures), takes it out of its original context, builds tasks around that data to get the desired outcome, and then presents those tasks to a curated set of Amazon’s Mechanical Turk workforce.

The result is meta-tagged data of nearly any scale returned within seconds with a 99.9% accuracy rating, all done by US workers.

### Cloud49 Form Data Extraction Surveillance

Similar to Microtask Surveillance described above, Cloud49’s Form Data Extraction tool is a SaaS software tool that allows extremely high volumes of form data (such as a key field in one form needed to be digitized and classified in order to connect two legacy databases together) to be tagged with key, relevant data that only a human can provide (e.g., “Is that a right or wrong code”) and then returned back to the originating agency for appropriate action (e.g., route for exception or route for storage).

Alegion, a partner of Cloud49, has developed a task workflow automation software layer that rests on top of Amazon’s Mechanical Turk workforce of 600,000+ micro-task workers. Originally, these workers focused on cataloging Amazon’s massive e-commerce catalog of products. Over time, Amazon opened up the pool of workers to outside, commercial use. A common example of using crowd-sourced labor would be an online photography website who needs to post tens of thousands of pictures to their website, and needs a person to tag key concepts onto the image.



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## SERVICE DESCRIPTIONS

### **EFSS Deployment Services - Hourly**

If customers need assistance to setup and deploy EFSS throughout their organizations, Cloud49's technicians can provide this service. Each end user deployment takes a few minutes and one group training is provided per site.

### **Crowdsourced Surveillance Data Moderation Implementation**

If customers need assistance to setup and deploy Alegion's micro-task platform, Cloud49's technicians can provide this service. Interviews are conducted to fully understand the customer's goals around the final data output, and then Cloud49 constructs the task templates and data extraction to ensure only relevant data is displayed, and that all microtask workers meet the customer's requirements, e.g., US citizens only.

### **Crowdsourced Form Data Extraction Implementation**

If customers need assistance to setup and deploy Alegion's micro-task platform, Cloud49's technicians can provide this service. Interviews are conducted to fully understand the customer's goals around the final data output, and then Cloud49 constructs the task templates and data extraction to ensure only relevant data is displayed, and that all microtask workers meet the customer's requirements, e.g., US citizens only.