

# Akamai FTP

Service Description

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## Introduction

Akamai operates a global network of thousands of servers distributed across the globe on hundreds of networks, delivering products and services to assist in doing effective and efficient business online. Since its inception in 1998, Akamai has proven itself consistently as the most reliable and fastest way to deliver data on the Internet, improving its clients' online revenues, customer satisfaction, and ensuring the success of their online initiatives.

File Transfer Protocol (FTP) is one of the oldest protocols on the Internet, but continues to be used today due to its effectiveness at making files available for upload and download. While FTP is effective, it suffers from typical problems that impact online operations – performance, reliability, and scalability – often resulting in costly issues. Akamai developed an FTP delivery service to address these problems.

### Key Benefits

- **Excellent Performance**

The distribution of the Akamai network allows delivery of files closer to end users on the Internet. While everyone can attest to the speed differences between a poorly-hosted site and a server on a LAN, it is nearly impossible to bring the benefits of the latter to end users without use of the Akamai network.

- **100% Reliability**

Any centralized resource creates a point of failure, which can disrupt operations when expected or unexpected issues arise. Customer support costs rise while customer satisfaction drops, but with Akamai, your files are always available for download.

- **Scalability on Demand**

Instantaneous, unexpected flash crowds often strike resources available on the Internet. For example, a new release of anticipated software or a media event sending visitors to a particular site can floor even the hardest centralized infrastructure. Akamai's network has always withstood such incidents, and provides an FTP service that scales on demand.

- **Cost Reduction**

Keeping and maintaining an extra service causes numerous hidden costs, such as man-time spent on upgrades, capacity planning, security, and more. With Akamai FTP, one no longer need support a public-facing FTP infrastructure for anonymous downloads, saving time and money.

# Akamai FTP

## Solution Architecture

Akamai FTP is a managed service that leverages Akamai's distributed infrastructure to serve files for clients over FTP. It works through the operation of distributed storage facilities, dispersed across the Internet in a manner providing high-performance for end users. Akamai FTP incorporates Akamai's proprietary replication technology and global traffic management service on top of best-of-breed core storage equipment. The result is a scalable, high-performance, and highly available storage and FTP Download service.

An Akamai customer uploads content to just one facility. After a file has been uploaded, it is immediately transferred to all other regions for instant availability.

Once the files are available in the facilities, a link to the content is published, using a hostname such as customer.download.akamai.com. This hostname directs end user DNS lookups to query Akamai's dynamic DNS-based mapping mechanism. Akamai's patented mapping technology incorporates real-time measurements about Internet topology, latency, packet loss, load, and routing to direct users transparently to the most optimal facilities. The user then connects to the machines in the most optimal facilities and downloads the FTP file using their browser, an FTP client, or embedded software.

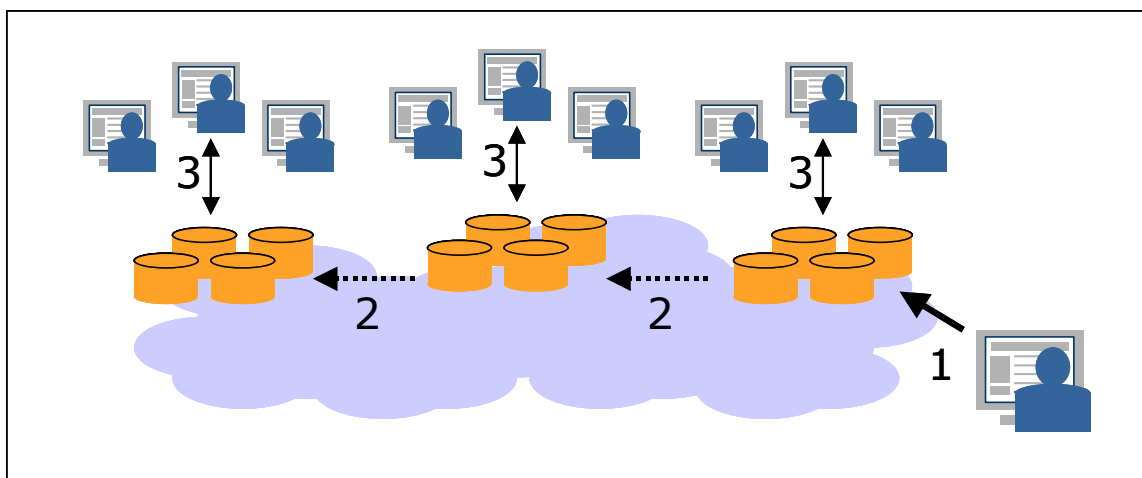


Figure 1: Akamai FTP

**This diagram outlines the process of uploading, replicating, and downloading FTP files using Akamai. In (1), the Akamai customer accesses a facility to upload a file. In step (2), the file is automatically replicated between storage sites. In step (3), satisfied end users download the file from the most optimal storage facility, having an excellent customer experience.**



## Implementation

Each content provider is given FTP access to NetStorage via a unique domain name of the form *customername.upload.akamai.com*. In turn, the domain name *customername.download.akamai.com* is used for accessing content. Once connected to the download hostname, one or more top-level directories from which to retrieve content become available. Each top-level directory is customer-specific, and a customer may have one or more directories, depending on the amount and type of content to be stored.

The FTP Download server has a trap for the "anonymous" account name, to force read-only access. For purposes of uploading files, Akamai clients are provided with one or more upload accounts that permit file upload, including in-place modification of files. Akamai also provides FTP upload extensions to help verify file integrity, as well as additional upload methods besides FTP, such as rsync and SCP.

## Reporting

Real-time and historical reporting on usage is available for customers of Akamai FTP. In particular, such reports provide the number of logins, number of files downloaded, and number of bytes delivered for a given time span, or in real-time. These reports are available on the EdgeControl Management Center, mentioned below.

If needed, raw logs of access activity can also be made available upon request.

# Customer Service and Support

A number of Customer Service and Support functions are available to Akamai customers.

## Account Management

Each Akamai customer is assigned an Account Manager, who is responsible for troubleshooting problems, recommending solutions, and ensuring complete customer satisfaction. Specific issues that Account Managers can handle include increasing storage volume commitments, answering pricing and billing questions, and so on. In addition, Account Managers are responsible for assigning user accounts and login passwords for the I.AM.AKAMAI customer portal.

## EdgeControl Management Center

The Akamai customer portal is a dedicated resource that offers software downloads, instruction guides, and other information specific to a customer's Akamai services. In addition, the customer portal allows customers to manage purchased Akamai services. For example, a NetStorage customer can use the portal to modify FTP passwords and view storage metadata such as replica locations, committed volume of storage (CVS), CP codes, and upload/download domain names. The customer can also use the portal to submit an issue ticket to Akamai Customer Care.

## Customer Care

*"On the Internet, a technical problem is a business problem. So everyone in our customer care unit is an expert, and they all share a simple objective: to answer every question on the first call or the first email. Period. It doesn't matter whether the question concerns something in our network or on the customer's Web site or in some third-party application; it's our responsibility to get the right answer and to get it fast. It's a complex world out there, and the one thing we never want to say is, "Well, that's not our problem. We don't do that." We say, "Whatever it is, we'll help." In fact, we like questions that aren't about our network because they help us learn more about the customer's needs and experiences - all that information is incredibly valuable to our R&D efforts."*

*--George Conrades, CEO Akamai Technologies. Harvard Business Review, May-June 2000.*

The above quote from Akamai CEO, George Conrades, sums up Akamai Customer Care, where specially trained professionals are available, on a 24 x 7 basis, to provide customers with technical assistance. Composed of a globally distributed staff with significant professional experience and advanced degrees, Customer Care is designed around a customer-centric single-tier system – the person answering the phone can solve the problem, regardless of the time of day. Customer Care is responsible for all internal escalations until there is satisfactory resolution of any issue, although almost all are handled during the first call. All escalations are logged into a central ticketing database that is accessible to the customer online via the Akamai portal (<https://control.akamai.com/>).

Customers can contact the Customer Care department by:

- Submitting an issue ticket via the EdgeControl Management Center
- Sending an email to [ccare@akamai.com](mailto:ccare@akamai.com)
- Calling the toll-free phone number: 1-877-4AKATEC (1-877-425-2832)

## Professional Services

Each Akamai customer is assigned a technical resource to assist in the integration of Akamai services into the customer's web infrastructure. Having worked with hundreds of organizations doing business online, Akamai Professional Services has the experience and savvy to ensure rapid and optimal implementation of any technical solution.

## Network Operations Command Center

Akamai's Network Operations Command Center (NOCC) monitors the state of the Akamai network on a 24 x 7 x 365 basis. If a problem is detected, Akamai's fault-tolerant system takes over, automatically supporting any affected server processes. This ensures that service is maintained without interruption. At the same time, the trained NOCC staff investigates and corrects the problem, ensuring that server processes are always up and running.



## About Akamai

Akamai® - The Business Internet, is the world's largest on demand distributed computing platform for conducting profitable e-business. Overcoming the inherent limitations of the Internet, Akamai's services ensure a high-performing, scalable, and secure environment for organizations to cost effectively extend and control their e-business infrastructure. Headquartered in Cambridge, Massachusetts, Akamai's industry-leading services, matched with world-class customer care, are used by hundreds of today's most successful enterprises and government agencies around the globe. For more information, visit [www.akamai.com](http://www.akamai.com).

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