

# OFFICE HOURS

TOPIC: CLOUD COMPUTING WITH FEDERAL TAX INFORMATION (FTI)  
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The IRS Office of Safeguards (Safeguards) hosts Office Hours for agencies to get more information or support on specific topics relevant to the safeguarding process. Office Hours is a forum for agencies to ask questions and interact with subject matter experts.

## SAFEGUARDS IN THE CLOUD

As agencies look for ways to reduce costs and improve operations, they may find cloud computing a promising alternative to traditional data center models. But, it's not without risk. Limiting access to authorized individuals becomes a much greater challenge. With more data in the cloud, agencies may have difficulty finding FTI that's segregated or commingled in it.

We will discuss the cloud model, computing requirements and how to prepare for an on-site review of a cloud solution.

## WHAT IS A CLOUD?

According to the National Institute of Standards and Technology (NIST), "cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction." This cloud model is composed of five essential characteristics, four deployment models, and three service models.

## IRS PUBLICATION 1075 CLOUD COMPUTING REQUIREMENTS

To use a cloud computing model to receive, transmit, store or process FTI, the agency must comply with these requirements in Publication 1075:

- FedRAMP authorization
- Onshore services
- Physical description
- Notification
- Data isolation
- Service Level Agreements (SLAs)
- Data encryption in transit

- Data encryption at rest
- Persistence of data in relieved assets
- Risk assessment
- Multi-factor authentication
- Security control implementation

## PREPARING FOR THE ON-SITE REVIEW OF A CLOUD SOLUTION

During the on-site review, Safeguards will assess any cloud computing solution used to receive, transmit, store or process FTI. We released a Safeguards Computer Security Evaluation Matrix (SCSEM) on the Safeguards page of IRS.gov ([www.irs.gov/uac/Safeguards-Program](http://www.irs.gov/uac/Safeguards-Program)) with cloud computing requirements and other best practices.

We will evaluate SLAs, contracts, etc. that are set up with the service provider. We will also evaluate the agency's security controls. The types of agency-provided controls depend on the service model in use.

## MORE RESOURCES

- <https://www.irs.gov/pub/irs-pdf/p1075.pdf>
  - <https://www.irs.gov/privacy-disclosure/cloud-computing-environment>
  - <https://csrc.nist.gov/publications/detail/sp/800-145/final>
  - <https://www.fedramp.gov/>
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