Microsoft® Official Course

Module 7

Implementing Active Directory Rights Management Services

Microsoft®

Module Overview

- AD RMS Overview
- Deploying and Managing an AD RMS Infrastructure
- Configuring AD RMS Content Protection
- Configuring External Access to AD RMS

Lesson 1: AD RMS Overview

- What Is AD RMS?
- Usage Scenarios for AD RMS
- Overview of the AD RMS Components
- AD RMS Certificates and Licenses
- How AD RMS Works

What Is AD RMS?

- Information protection technology
- Designed to reduce information leakage
- Integrated with Windows operating systems, Microsoft Office, Exchange Server, and SharePoint Server
- Based on Symmetric and Public Key Cryptography
- Protects data at rest, in transit, and in use

Usage Scenarios for AD RMS

- Prevent the transmission of sensitive information
- Comply with privacy regulations
- Can be used with encryption to protect data in transit and at rest

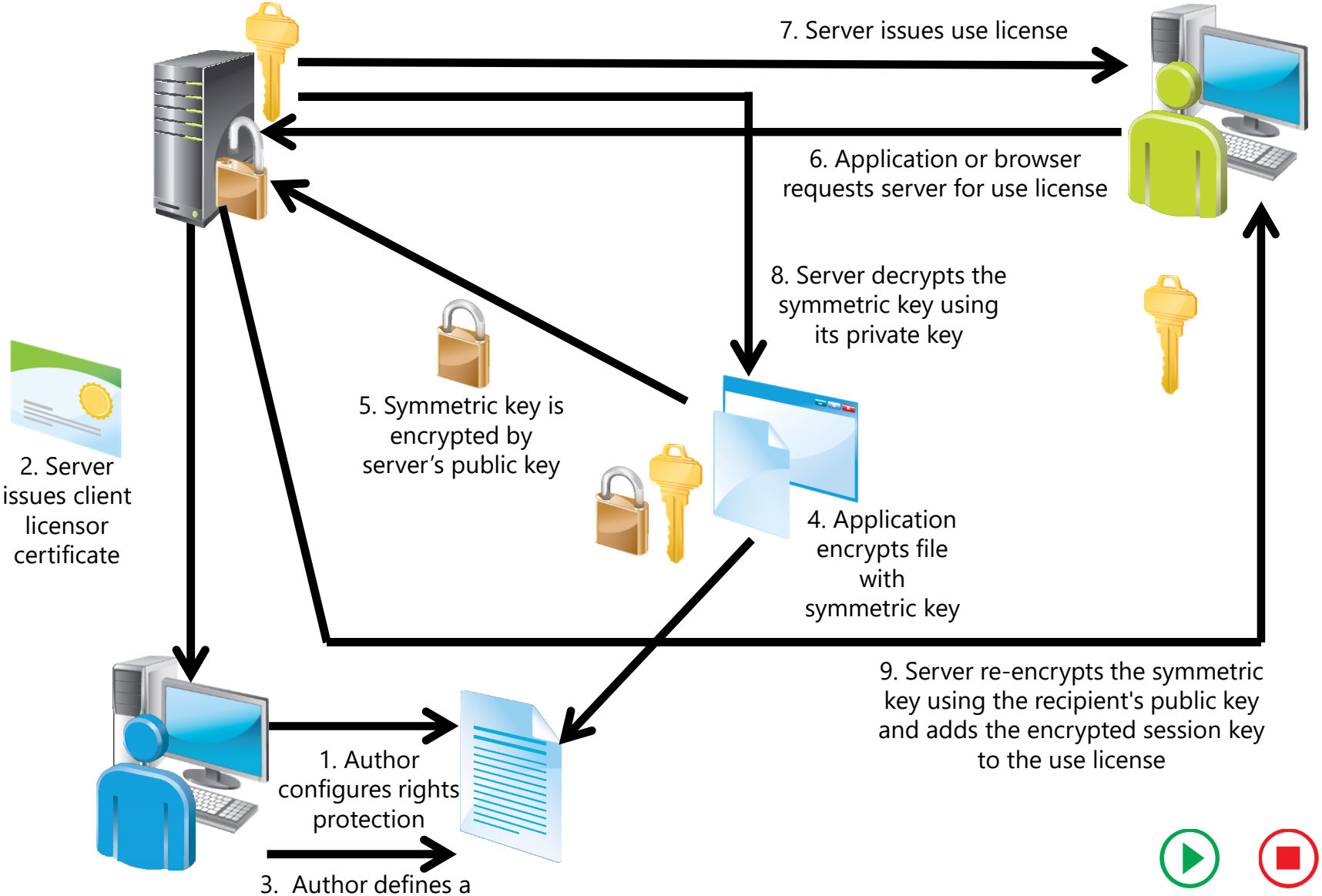
Overview of the AD RMS Components

- AD RMS cluster
- AD RMS server
  - Licenses AD RMS-protected content
  - Certifies identity of trusted users and devices
- AD RMS client
  - Built into Windows Vista, Windows 7, and Windows 8
  - Interacts with AD RMS-enabled applications
- AD RMS-enabled applications
  - Allows publication and consumption of AD RMS-protected content
  - Includes Microsoft Office, Exchange Server, and SharePoint Server
  - Can be created using AD RMS SDKs.

AD RMS Certificates and Licenses

- AD RMS certificate and licenses include:
  - Server licensor certificate
  - AD RMS machine certificate
  - Rights Account Certificate
  - Client licensor certificate
  - Publishing license
  - End-user license

How AD RMS Works



Lesson 2: Deploying and Managing an AD RMS Infrastructure

- AD RMS Deployment Scenarios
- Configuring the AD RMS Cluster
- Demonstration: Installing the First Server of an AD RMS Cluster
- AD RMS Client Requirements
- Implementing an AD RMS Backup and Recovery Strategy
- Decommissioning and Removing AD RMS

AD RMS Deployment Scenarios

- Deployment scenarios for AD RMS are:
  - AD RMS in a single forest
  - AD RMS in multiple forests
  - AD RMS used on an extranet
  - AD RMS integrated with AD FS

Configuring the AD RMS Cluster

AD RMS configuration includes configuring of following:

- New or join existing cluster
- Configuration database location
- Service account
- Cryptographic mode
- Cluster key storage
- Cluster key password
- Cluster website
- Cluster address
- Server certificate
- Licensor certificate
- SCP registration

Demonstration: Installing the First Server of an AD RMS Cluster

In this demonstration, you will see how to install the first server of an AD RSM cluster

AD RMS Client Requirements

- Client included in Windows Vista and newer operating systems
- Client included in Windows Server 2008 and newer operating systems
- Client available for download for previous versions of Windows operating systems, and Mac OS X
- AD RMS–enabled applications include Office 2007, Office 2010, and Office 2013
- Exchange Server 2007, Exchange Server 2010, and Exchange Server 2013 support AD RMS
- AD RMS clients needs RMS CAL

Implementing an AD RMS Backup and Recovery Strategy

- Back up private key and certificates
- Ensure that the AD RMS database is backed up regularly
- Export templates to back them up
- Run the AD RMS server as a virtual machine, and perform full server backup

Decommissioning and Removing AD RMS

- Decommission an AD RMS cluster prior to removing it
  - Decommissioning provides a key that decrypts previously published AD RMS content
  - Leave server in decommissioned state until all AD RMS–protected content is migrated
- Export the server licensor certificate prior to uninstalling the AD RMS role

Lesson 3: Configuring AD RMS Content Protection

- What Are Rights Policy Templates?
- Demonstration: Creating a Rights policy Template
- Providing Rights policy Templates for Offline Use
- What Are Exclusion Policies?
- Demonstration: Creating an Exclusion Policy to Exclude an Application
- AD RMS Super Users Group
- AD RMS Integration with Dynamic Access Control

What Are Rights Policy Templates?

- Allow authors to apply standard forms of protection across the organization
- Different applications allow different forms of rights
- Can configure rights related to viewing, editing, and printing documents
- Can configure content expiration rights
- Can configure content revocation

Demonstration: Creating a Rights policy Template

In this demonstration, you will see how to create a rights policy template that allows users to view a document, but not to perform other actions

Providing Rights policy Templates for Offline Use

- Ensure that templates are published to a shared folder
- Enable the AD RMS Rights Policy Template Management (Automated) Scheduled Task
- Edit the registry key and specify the shared folder location

What Are Exclusion Policies?

Allows you to:

- Block specific users from accessing AD RMS–protected content by blocking their RAC
- Block specific applications from creating or consuming AD RMS–protected content
- Block specific versions of the AD RMS client

Demonstration: Creating an Exclusion Policy to Exclude an Application

In this demonstration, you will see how to exclude the Microsoft PowerPoint application from AD RMS

AD RMS Super Users Group

- Super users group members are granted full owner rights in all use licenses that are issued by the AD RMS cluster on which the super users group is configured.
- Super users group:
  - Is not configured by default
  - Can be used as data recovery mechanism for AD RMS–protected content
    - Can recover content that has expired
    - Can recover content if the template is deleted
    - Can recover content without requiring author credentials
  - Must be an Active Directory group with an assigned email address.

AD RMS Integration with Dynamic Access Control

- DAC applies encryption by using AD RMS
- DAC protects documents even if inadvertently saved, sent, or processed incorrectly
- DAC extends AD RMS to the file server

Lesson 4: Configuring External Access to AD RMS

- Options for Enabling External Users with AD RMS Access
- Implementing Trusted User Domain
- Implementing TPD
- Sharing AD RMS–Protected Documents by Using a Microsoft Account
- Considerations for Implementing External User Access to AD RMS
- Windows Azure AD Rights Management

Options for Enabling External Users with AD RMS Access

- Trusted User Domains
  - Exchange protected content between two organizations
- Trusted Publishing Domains
  - Consolidate AD RMS architecture
- Federation Trust
  - One AD RMS infrastructure is accessible to AD FS partners
- Windows Live ID
  - Allow stand alone users access to AD RMS content
- Microsoft Federation Gateway
  - Allow an AD RMS cluster to work with Microsoft Federation Gateway without requiring a direct Federation Trust

Implementing Trusted User Domain

- Allows AD RMS to service requests to users with RACs from different AD RMS clusters
- TUDs:
  - Support exclusions to individual users and groups
  - Can be one-way or bidirectional
- Must export TUD from partner before importing TUD locally

Implementing TPD

- Allows a local AD RMS deployment to issue EULs to content protected by a partner AD RMS cluster
- Involves importing the SLC of the partner AD RMS cluster
- No limit to the number of supported TPDs

Sharing AD RMS–Protected Documents by Using a Microsoft Account

- Provide RACs to users who are not part of an organization
- Users with Microsoft Accounts can consume AD RMS–protected content
- Users with Microsoft Accounts cannot publish AD RMS–protected content

Considerations for Implementing External User Access to AD RMS

- Use Windows Live ID to issue RACs to users who are not part of organizations, and who need to consume content
- Use TUD for RACs issued by a different AD RMS cluster
- Use TPD to allow local RACs to access remotely published AD RMS content
- Use Federation Trust between organizations that have a federated relationship
- Use Microsoft Federation Gateway when no direct federated relationship exists

Windows Azure AD Rights Management

- Windows Azure Rights Management is IRM-based cloud service protection
- Windows Azure Right Management is available in Office 365 Enterprise E3 and Office 365 ProPlus
- Windows Azure AD Rights Management provides:
  - IRM integration with Microsoft Office
  - Exchange Online IRM integration
  - SharePoint Online IRM integration

Lab: Implementing AD RMS

- Exercise 1: Installing and AD RMS
- Exercise 2: Configuring AD RMS Templates
- Exercise 3: Implementing the AD RMS Trust Policies
- Exercise 4: Verifying AD RMS on a Client

Logon Information

Virtual machines: 20412D-LON-DC1, 20412D-LON-SVR1, 20412D-LON-CL1, 20412D-TREY-DC1, 20412D-TREY-CL1
User name: **Adatum\Administrator**
Password: **Pa$$w0rd**

Estimated Time: 60 minutes

Lab Scenario

Because of the highly confidential nature of the research that is performed at A. Datum Corporation, the security team at A. Datum wants to implement additional security for certain documents that the Research department creates. The security team is concerned that anyone with Read access to the documents can modify and distribute the documents in any way that they choose. The security team would like to provide an extra level of protection that stays with the document even if it is moved around the network or outside the network.

Lab Scenario

As one of the senior network administrators at A. Datum, you need to plan and implement an AD RMS solution that will provide the level of protection requested by the security team. The AD RMS solution must provide many different options that can be adapted for a wide variety of business and security requirements.

Lab Review

- What considerations should you make and steps you can take when you use the AD RMS role?

Module Review and Takeaways

- Review Questions
- Tools
- Real-world Issues and Scenarios
- Best Practice