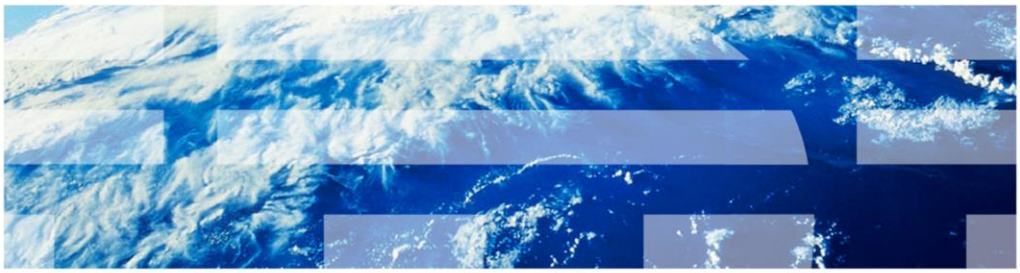
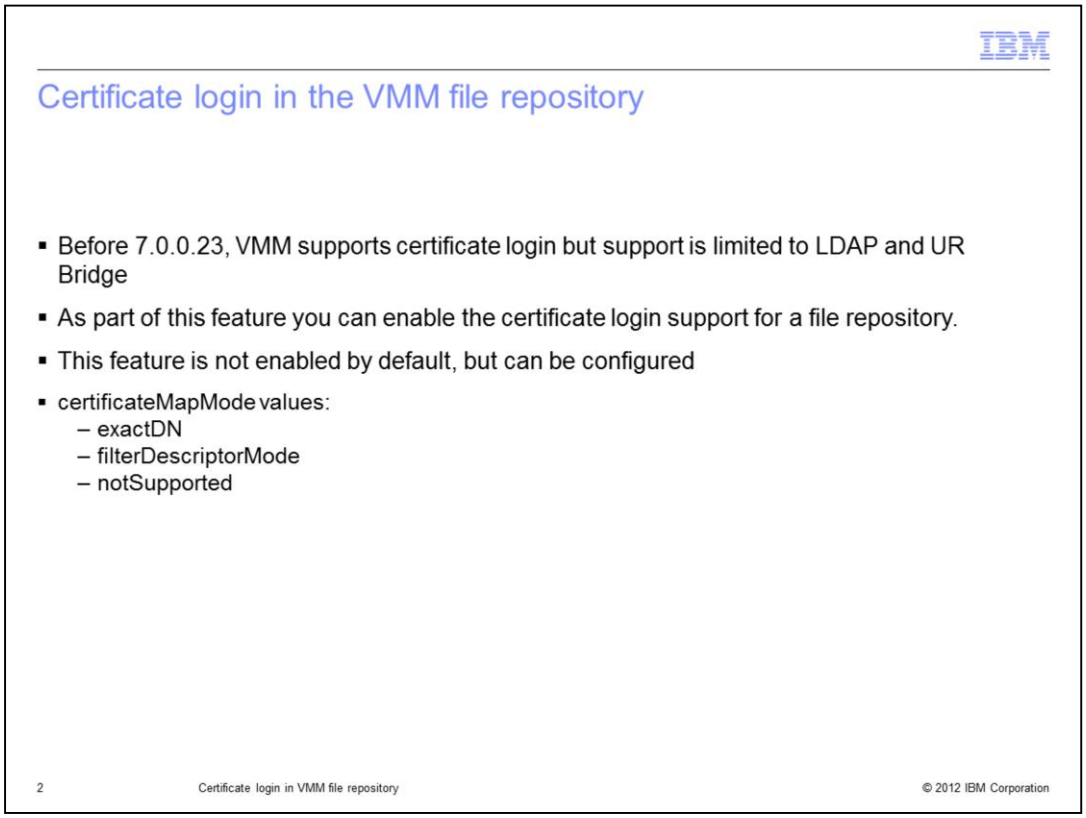
IBM WebSphere Application Server V7.0.0.23

Certificate login in VMM file repository



This presentation describes support for certificate login in the virtual member manager file repository that is included in IBM WebSphere® Application Server V7.0.0.23



Before 7.0.0.23, the virtual member manager supports certificate login only for LDAP and UR Bridge. Additionally, in the case of UR Bridge, the support is only available if the underlying repository supports certificate login. This feature extends the support of certificate login to the include the file repository.

For compatibility with earlier versions, the default behavior is for the file repository to ignore certificate login requests. You can configure the VMM to enable the this new support. As shown here, two new custom properties are added: certificateMapMode and certificateFilter.

With changes introduced in 7.0.0.23, the file adapter component's login behavior is now dependent on a custom property: certificateMapMode.

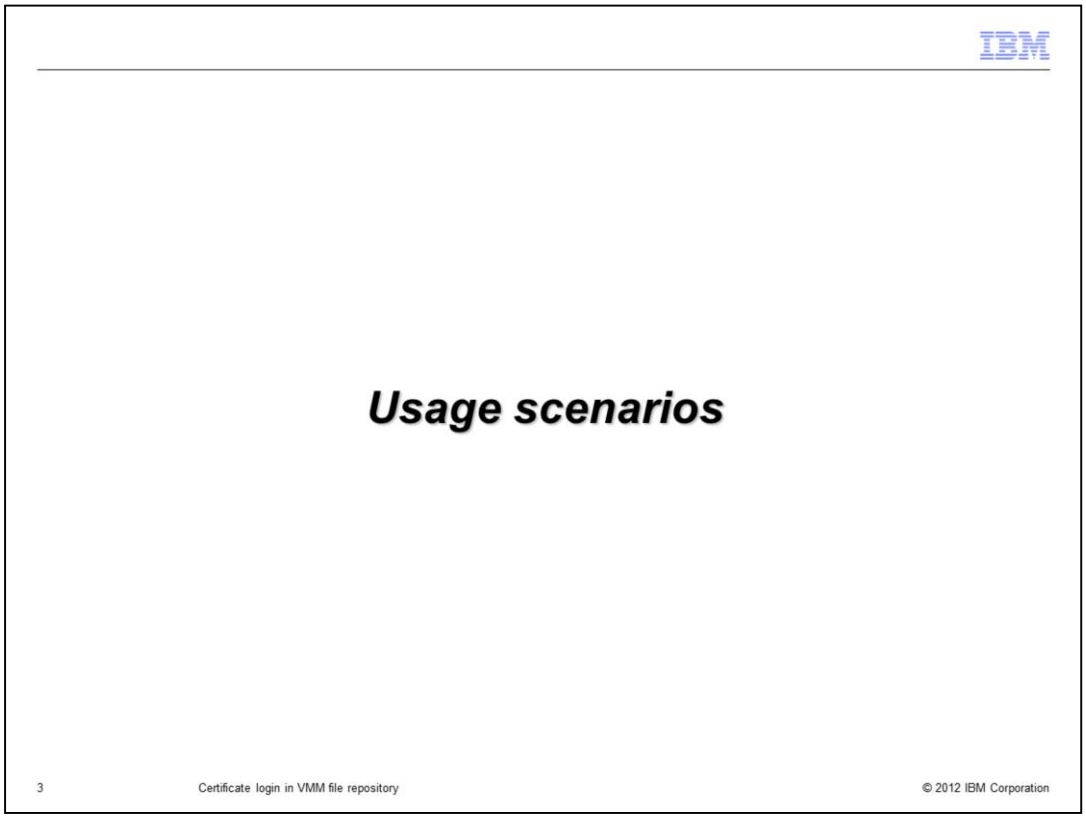
If the custom property certificateMapMode is not defined, the file adapter returns an empty result for certificate login. This is also the default behavior of the file adapter before 7.0.0.23.

If certificateMapMode is set to exactDN, the certificate login is mapped to the distinguished name.

If certificateMapMode is set to filterDescriptorMode, mapping occurs using the certificateFilter custom property.

If certificateMapMode is set to notSupported, the feature creates CertificateMapNotSupportedException. This is a new property value to support behavior before 7.0.0.19.

If certificateMapMode is set to an not valid value, an error is logged during adapter initialization and an empty result is returned at runtime.



This feature is used in the scenarios shown in the next few slides.

If custom property “certificateMapMode” is not defined, then all certificate log in requests are ignored by the file repository adapter.

In a multiple repository configuration, the VMM tries to log in the user against all configured repositories. After the file repository ignores the request, the VMM proceeds to attempt to log in the user to the next configured repository, for example an LDAP repository. If the log in attempt to the repository is successful, the log in attempt is successful. If the log in attempt to the other repository fails, the log in attempt fails. Details of exceptions encountered in a multiple repository scenario are listed on following slides.

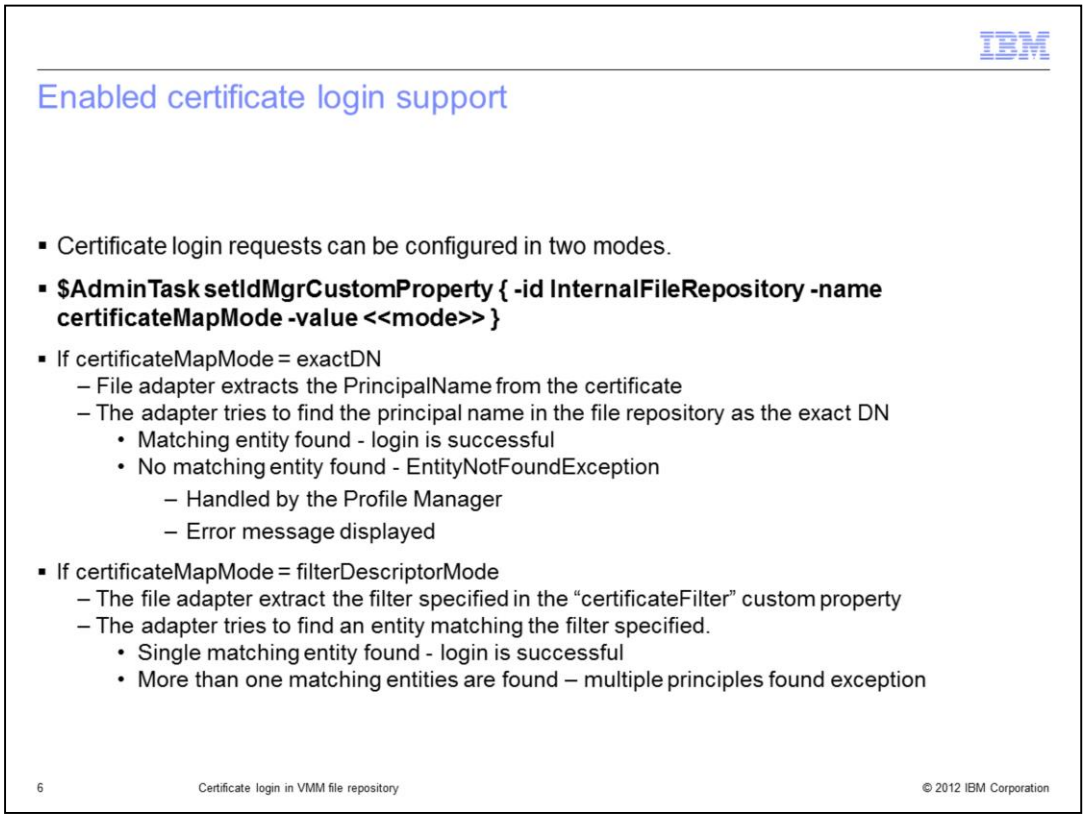
In the case of a single repository the login attempt fails, as the file repository ignores the login request.

If you add the custom property, certificateMapMode, and set the value to “notSupported”, the File repository adapter is configured to fail all certificate login attempts.

Any attempt to perform a certificate login will result in a CertificateMapNotSupportedException thrown by the file repository adapter.

If the VMM is configured with only one file repository, a CertificateMapNotSupportedException is created.

If the VMM is configured with more than one repository, a CertificateMapFailedException is created.

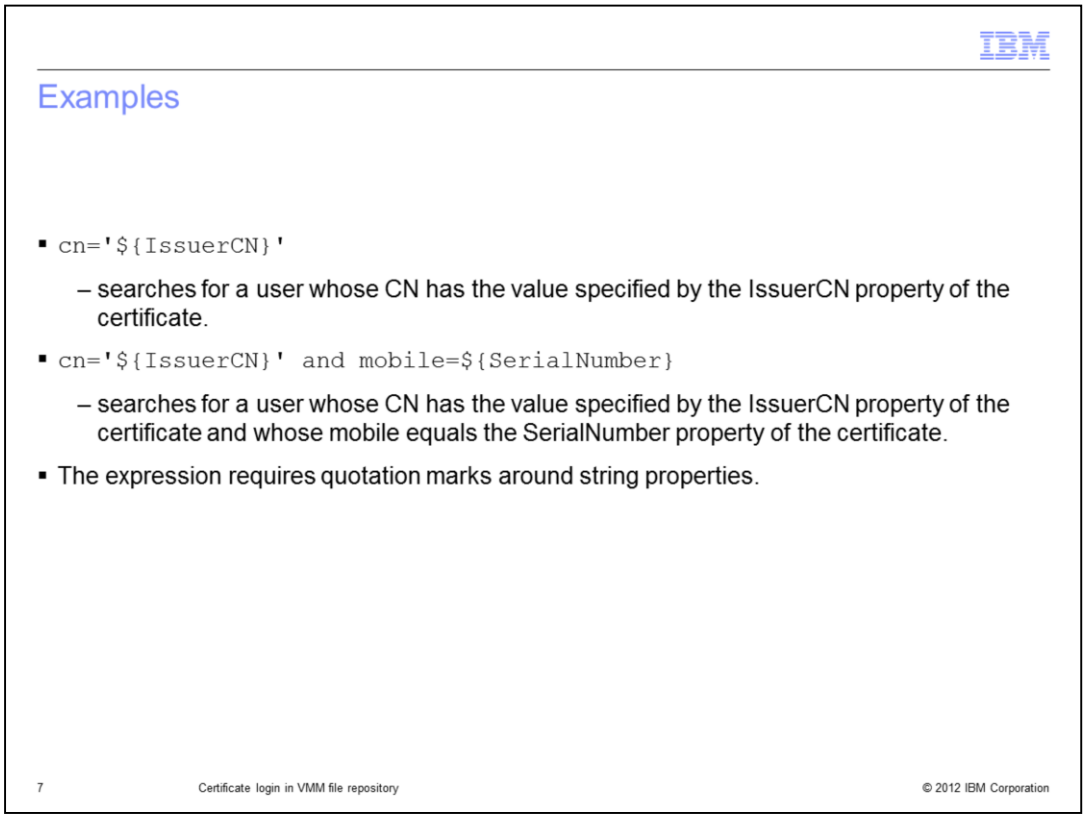


The certificate login enabled mode for the file repository is similar to the certificate login in an LDAP repository.

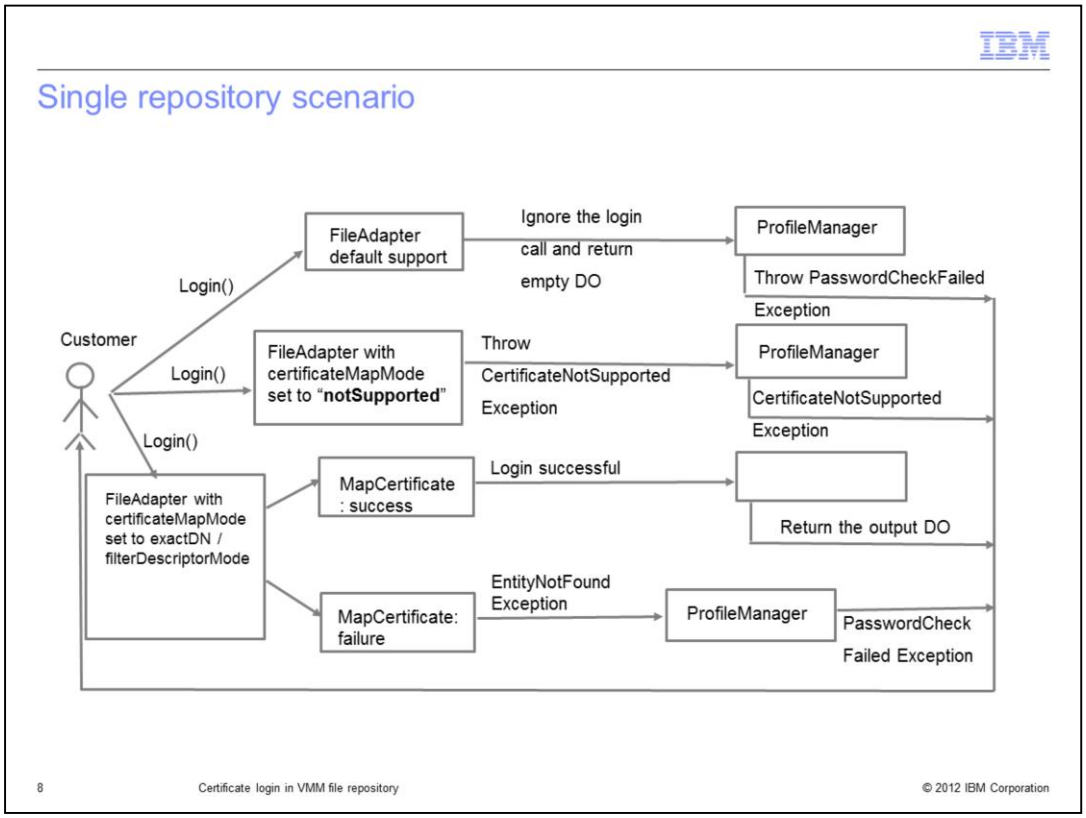
Certificate login can be used in two modes.

When the certificateMapMode is set to “exactDN”, the file adapter extracts the PrincipalName from the certificate. The adapter tries to find the principal name in the file repository as the exact distinguished name. If a matching entity is found, the login is successful. If a matching entity is not found, the adapter throws an EntityNotFoundException exception. This is handled by the Profile Manager and an appropriate error message is displayed.

When the certificateMapMode is set to “filterDescriptorMode”, the file adapter extracts the filter specified in the “certificateFilter” custom property. The adapter tries to find an entity matching the filter specified. If a single matching entity is found, the login is successful. If more than one matching entities are found, the adapter throws a multiple principals found exception.



This slide shows sample expressions. Note that these expressions require quotation marks around any string properties.



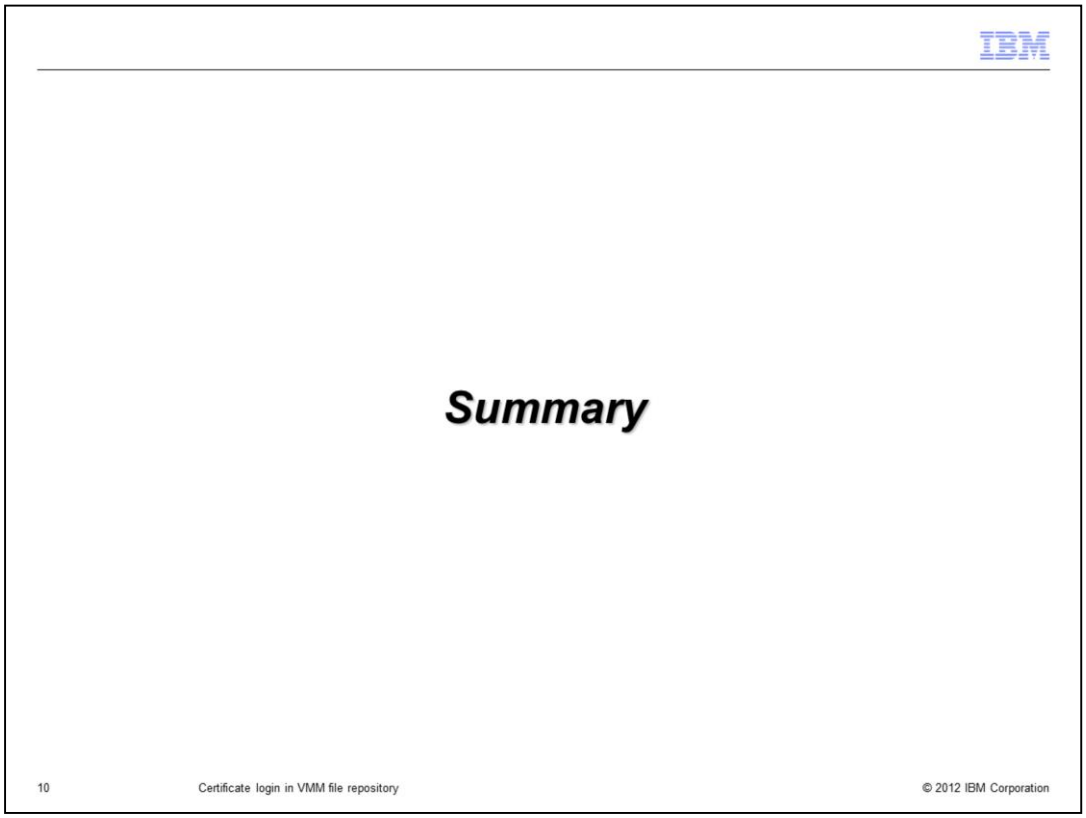
This diagram shows the various modes of usage and their possible outputs.

Multiple repository scenario

- Multiple repository setup exceptions

Repository 1 behavior	Repository 2 behavior	Behavior seen by the User
Certificate Login successful / Certificate Login not successful	CertificateMapNotSupportedException	CertificateMapFailedException
CertificateMapNotSupportedException	CertificateMapNotSupportedException	CertificateMapNotSupportedException
Certificate Login successful	EntityNotFoundException	Certificate Login successful
Certificate Login successful	Certificate Login request ignored	Certificate Login successful
EntityNotFoundException	Certificate Login request ignored	PasswordCheckFailedException
EntityNotFoundException	EntityNotFoundException	PasswordCheckFailedException
Certificate Login successful	Certificate Login successful	DuplicateLogonIdException

This table lists the different exceptions encountered in multiple repository configuration.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Summary
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Certificate login in VMM file repository
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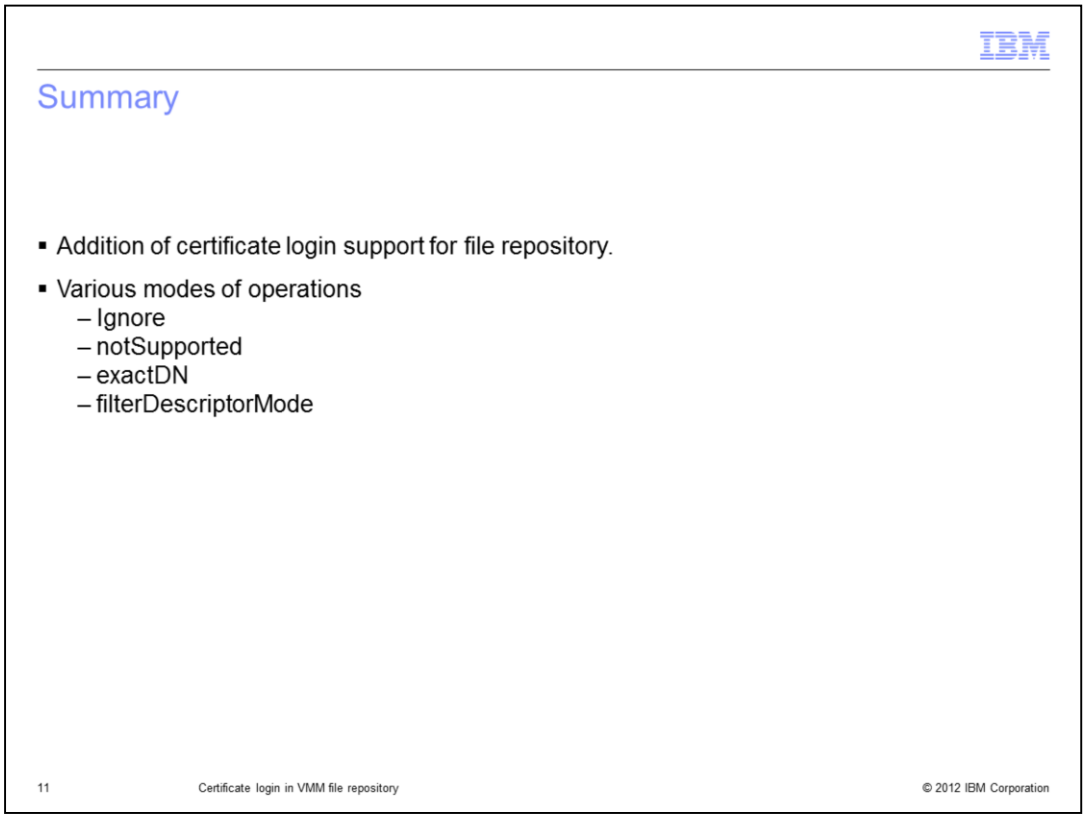
In summary.



This feature extends certificate login support to include the file repository.

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