4 Aug 2023 - Customize PKI Addendum

Friday, August 4, 2023 7:14 AM

PKI addendum pack

Background:

The whole purpose of the addendum packs is to make 'smarter vs. harder' mantra packs. Packs that take 'lessons from the field' inputs from Microsoft engineers in each technology, incorporating monitoring best practices, and advancing the monitoring maturity. Maturity examples include self-healing monitors, recovery automation, running further scripts to diagnose, resolve issues. Issues like service recovery automation, TopProcess troubleshooting (what processes were hogging CPU/Memory at the time of alert), or logical disk cleanup. Other capabilities include simply tuning alerts for the health model, removing alerts that are not impacting. The PKI addendum adds a number of groups breaking out multiple different certificate scenarios reducing operational burden, switching to manual intervention. The pack creates groups of various certificate types and allows customization to when relevant teams want alerts.

Pack functionality includes:

Groups created to Discover and monitor certificates in server certificate stores
Critical alert for expired certificates
Warning alert for invalid certificate chains, self-signed certificates, and revoked scenarios
PKI certificate monitoring includes views in SCOM Console, for valid, about to expire, invalid and more
The groups utilize existing CA Auto-enrollment templates to help administrators know when manual intervention is required that template did NOT replace certificate
Updates default 'about to expire' alerts to 60 day warning alerts, 30 day critical
- The groups allow breakout for DC, RDP, OCSP, Internal and external issued certificates
- Allows monitoring to be adjusted per organizational standards and procedures.

The PKI addendum (customizations) pack adds the following:

Additional discoveries (groups) added:
- OCSP recurring certificates
- Computer Certificates
- Domain Controller (DC) Kerberos AutoEnrollment certificates
- RDPAuth Computer certificates
- SCCM/MECM ConfigMgrServerCert certificates
- SCCM/MECM ConfigMgrClientCert certificates
- SCCM/MECM ConfigMgrWebServerCert certificates
- SCCM/MECM ConfigMgrWinPEImages certificates
- Internal issued certs (example CN=US Army xxxx Issuing CA *)
- External issued certs (example CN=DOD SW *)
- SCCM/MECM SMS Issued self-signed certificates
- SolarWinds self-signed certificates
- Splunk self-signed certificates
- VEEAM self-signed certificates

Customize Overrides included:

Break out of overrides included in the pack.
- Changed default discovery spread initialization to 30 minutes

Why: This randomizes the workflow within a 30 minute window preventing ALL monitored systems running at the same time.

Enabled functionality:
- Local Certificate store & SelfSigned Certificate discoveries
- ***Assess additional folders to monitor
  - i.e. Remote Desktop, Trusted Root and Intermediate certificate folders

Override default CertificateAboutToExpire monitor (can be adjusted)
- Global Certificates LifetimeThreshold to 60 days
- Certificate Templates LifetimeThreshold to 30 days
- External certs LifetimeThreshold to 60 days
- Internal certs LifetimeThreshold to 30 days
- ALL discoveries (sub-groups) set to warning except Internal/External

Disable CertificateValidity monitors for self-signed certs
- Reason: Alert when expire, not self-signed cert chain issues
  - SCCM/MECM SMS Issued, SolarWinds, Splunk, VEEAM

Other certificate functionality

Add groups for CA Auto templates, when template automation does NOT replace certification
- i.e. when SysAdmin manual intervention required

Requires verification after importing for group GUID's
- NOTE: Update less likely if installed in new environment should GUIDs be in use

Update PKI pack for environment

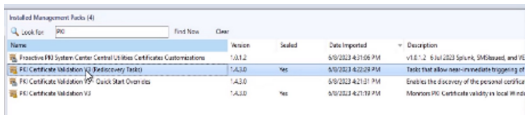
Pre-req PKI and PKI customizations pack must be imported to add the groups. This allows group customization , and updating overrides. Correcting the overrides is required to correct GUID for 'Context Instance' in environment. Unfortunately, this is a limitation of moving groups across SCOM management groups, and the inherent random GUID assignment of discovered objects/properties, etc.

Install PKI packs

Verify if PKI packs are installed, including te customizations pack (which creates the groups)

Navigation Steps:
From the SCOM Console > Administration Tab > Management Packs > Installed Management Packs
In the 'Look for:' bar, type PKI and hit enter

If your output has the four packs, proceed to next step.
Otherwise, import relevant packs



Update group regular expressions (regEx) as needed

Need to tailor the groups added for smarter alerts WHEN manual intervention is required.
NOTE: No updates to groups may just result in empty groups

Update - Find/Replace regular expression (RegEx) strings as necessary

Proactive.CA.OCSP.Recurring.Certificates.Group.DiscoveryRule
- Server Principal name = (?i)OCSP
- EnhancedKeyUsageList = (?i)OCSP Signing

Proactive.Computer.Certificates.Group.DiscoveryRule
- TemplateName = (?i)Computer Template|DomainComputers|Domain Computers|Domain Controller|RemoteDesktop

Proactive.Domain.Controller.Kerberos.AutoEnrollment.Certificates.Group.DiscoveryRule
- TemplateName = (?i)DCKerberos

Proactive.RDPAuth.Computer.Certificates.Group.DiscoveryRule
- TemplateName = (?i)RDPAuth|RemoteDesktop

Proactive.MECM.SCCM.ConfigMgrServerCert.Certificates.Group.DiscoveryRule
- TemplateName = (?i)ConfigMgrServerCert

Proactive.MECM.SCCM.ConfigMgrClientCert.Certificates.Group.DiscoveryRule
- TemplateName = (?i)ConfigMgrClientCert

Proactive.MECM.SCCM.ConfigMgrWebServerCert.Certificates.Group.DiscoveryRule
- TemplateName = (?i)ConfigMgrWebServerCert

Proactive.MECM.SCCM.ConfigMgrWinPEImages.Certificates.Group.DiscoveryRule
- TemplateName = (?i)ConfigMgrWinPEImages

Proactive.Internal.Issuing.CA.Group.DiscoveryRule
- CertIssuedBy = CN=##CAINTCN## *
- Server PrincipalName = (?i)##SERVERNAMEREGEX##

Proactive.External.Issuing.CA.Group.DiscoveryRule
- CertIssuedBy = CN=##CAEXTCN## *
- Server PrincipalName = (?i)##SERVERNAMEREGEX##

Proactive.MECM.SCCM.SMSIssuing.Certificate.Group
- CertIssuedBy = CN=SMS Issuing

Proactive.SolarWinds.Certificate.Group
- CertIssuedBy = SolarWinds

Proactive.Splunk.Certificate.Group
- CertIssuedBy = Splunk

Proactive.VEEAM.Certificate.Group
- CertIssuedBy = Veeam Backup Server Certificate

External Discovery update example
Find/Replace highlighted expressions
##CAEXTCN## > Eeplace with external CN path discovered from SCOM console state view
##EXTSERVERNAMEREGEX## > Replace with Server naming convention, whether for CA or generic to server naming conventions at site that delineate the external certificates installed on servers in environment

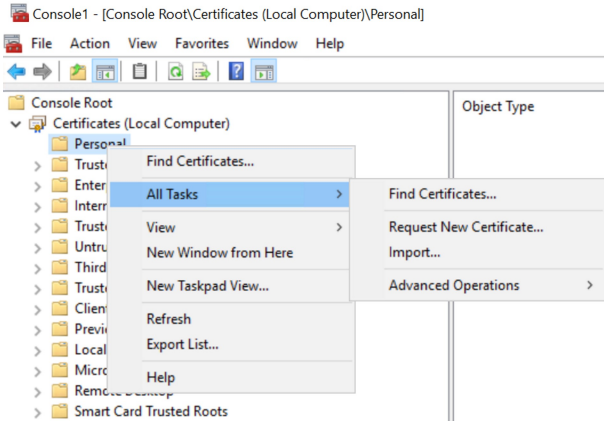
```
<Discovery ID="Proactive.External.Issuing.CA.Group.DiscoveryRule" Enabled="true" Target="Proactive.External.Issuing.CA.Group" ConfirmDeliv
  <Category>Discovery</Category>
  <DiscoveryTypes>
    <DiscoveryRelationship TypeID="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities" />
  </DiscoveryTypes>
  <DataSource ID="GroupPopulationDataSource" TypeID="SC!Microsoft.SystemCenter.GroupPopulator">
    <RuleId>$MPElement$</RuleId>
    <GroupInstanceId>$MPElement[Name="Proactive.External.Issuing.CA.Group"]$</GroupInstanceId>
    <MembershipRules>
      <MembershipRule>
        <MonitoringClass>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]$</MonitoringClass>
        <RelationshipClass>$MPElement[Name="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities"]$</RelationshipClass>
        <Expression>
          <And>
            <Expression>
              <RegExExpression>
                <ValueExpression>
                  <Property>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]/CertIssuedBy$</Property>
                </ValueExpression>
                <Operator>MatchesWildcard</Operator>
                <Pattern>CN=##CAEXTCN## *</Pattern>
              </RegExExpression>
            </Expression>
            <Expression>
              <RegExExpression>
                <ValueExpression>
                  <HostProperty>
                    <MonitoringClass>$MPElement[Name="Windows!Microsoft.Windows.Computer"]$</MonitoringClass>
                    <Property>$MPElement[Name="Windows!Microsoft.Windows.Computer"]/PrincipalName$</Property>
                  </HostProperty>
                </ValueExpression>
                <Operator>MatchesRegularExpression</Operator>
                <Pattern>(?i)##EXTSERVERNAMEREGEX##</Pattern>
              </RegExExpression>
            </Expression>
```

Certificate template names

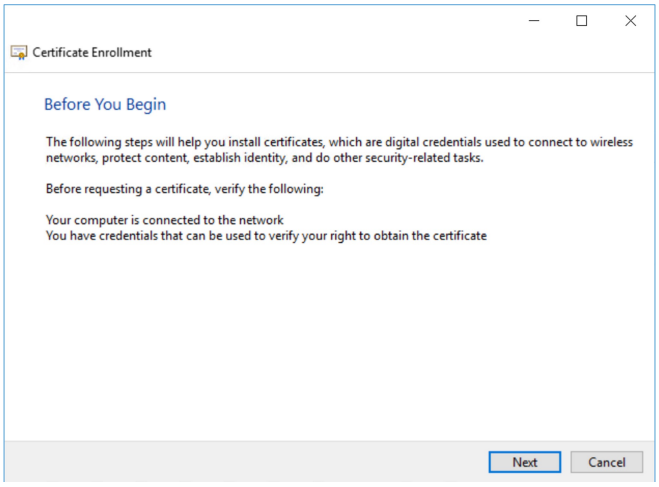
Using Certificate Authority (CA) auto-enrollment templates is a best practice allowing PKI structured environments to automatically query, renew/replace certificates automatically. If these are used in the environment, we want monitoring to match, so that alerts occur when automation fails, requiring manual intervention.

Verify Active Directory Enrollment policy exists in environment
Login to server, run MMC
Add SnapIn for Certificates (for local computer)

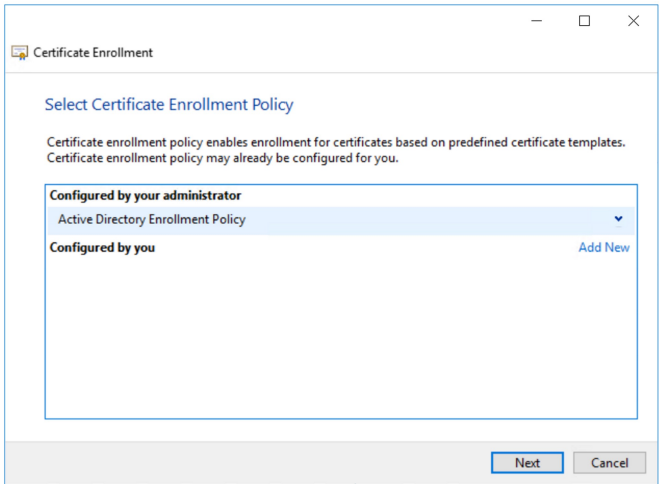
Example output of Personal certificate store > right click > All Tasks > Request New Certificate



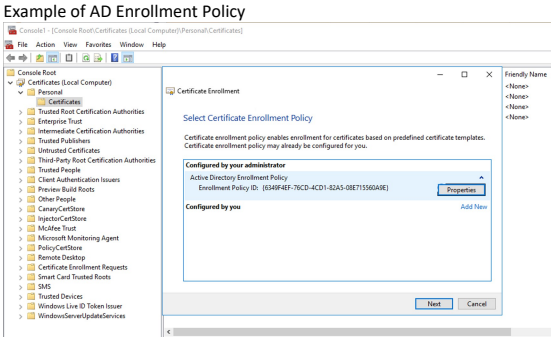
Click Next



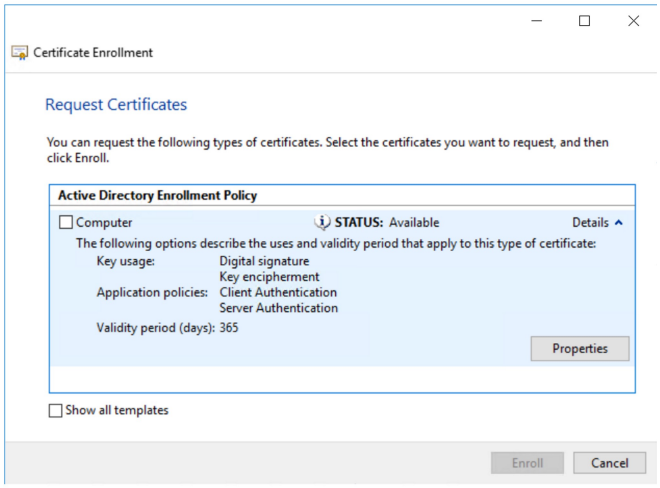
Click Next



Example of AD Enrollment Policy



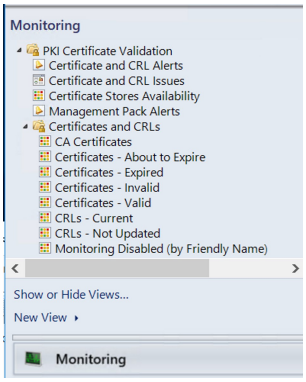
Example in Lab if you have Tier0/Domain Admin rights



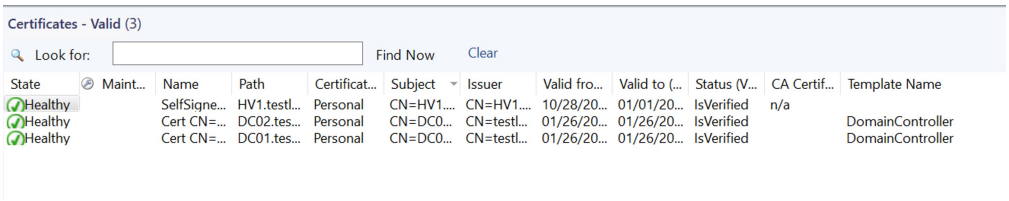
View discovered certificate data

Verify SCOM discovered certificates (any server with agent) in the environment that use TemplateName property, and customize accordingly.

Navigation Steps:
From SCOM console
Click on Monitoring Tab > expand 'PKI certificate Validation' folder
Expand 'Certificates and CRLs' folder
Click on Certificates - Valid state view

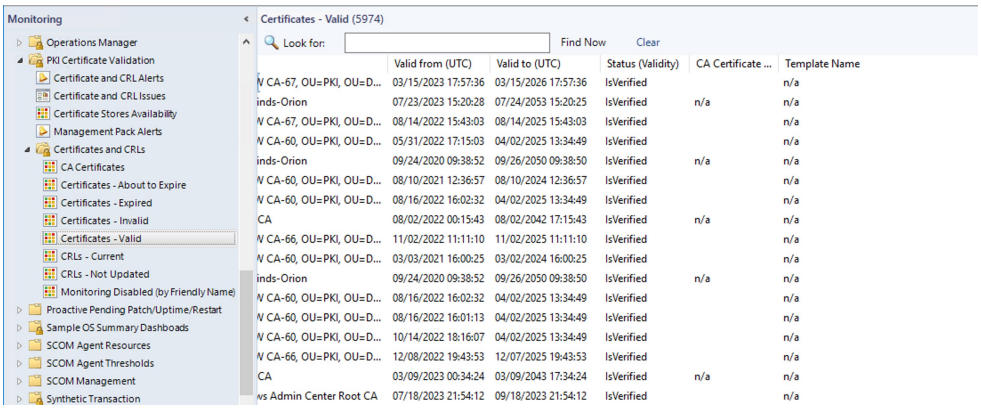


Click on the 'Template Name' to sort to help group discovered certificates
NOTE: Output used for matching groups to actual template names



Highlight a certificate
Copy/Paste to notepad, and keep the name(s).
The Template Name(s) will be utilized in the next step (updating the group patterns)
Clean up SCOM output on notepad for the unique Template Name(s). This may require Tier0/Domain Admin assistance to answer when the template should have replaced the expiring certificate, as well as WHEN an alert is needed for manual intervention. The answers and notepad will provide what is needed in a meeting to discuss proper tuning.

Navigation steps:
Go to SCOM Console > Monitoring Tab
Expand PKI folder, Expand Certificates and CRL's
Click on Certificates - Valid' view
Sort by Template Name (TemplateName in XML)



Save this data to use below when we update the Group discoveries to match environment (AD enrollment policies)

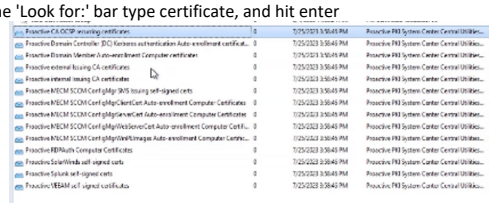
Verify Groups and 'Group Members'

Use the output from the 'Certificate template names' to verify groups and group members

Navigation Steps:

From the SCOM Console > Authoring Tab > Click on Groups

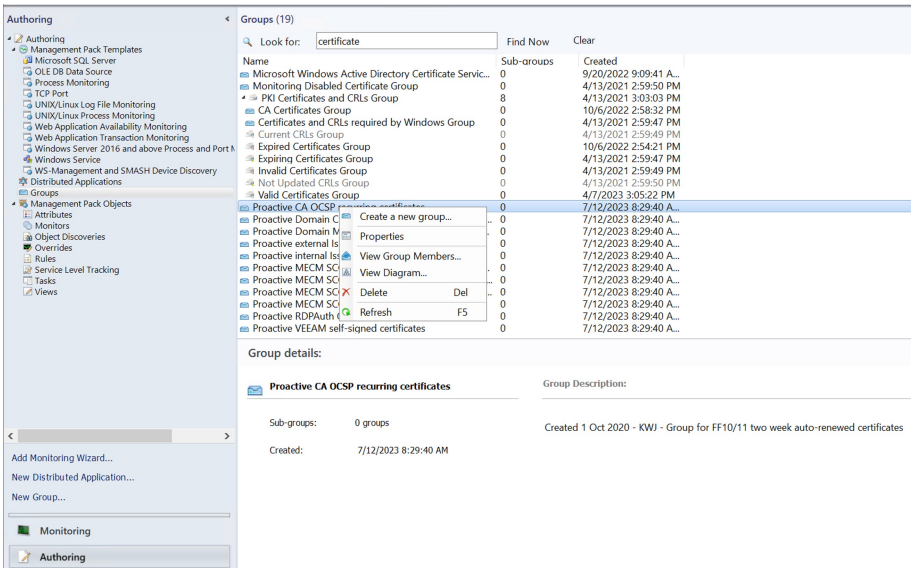
In the 'Look for:' bar type certificate, and hit enter



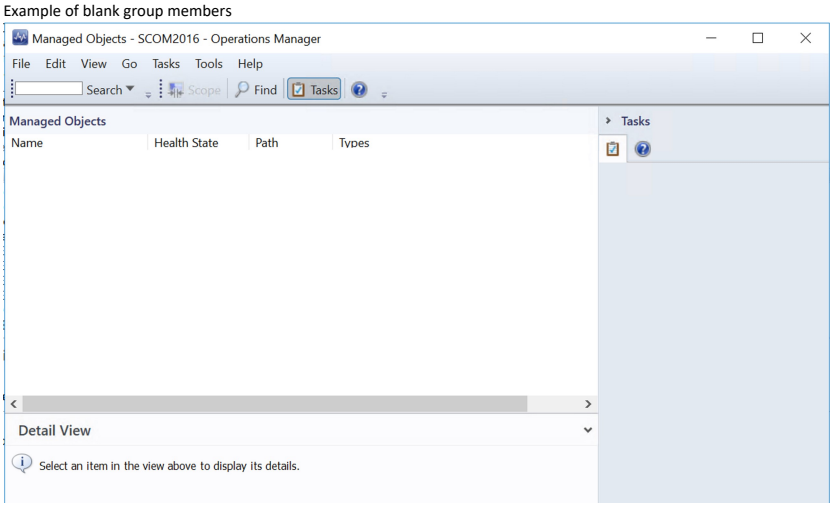
Click on a group > select 'View Group Members'

If the output is blank, that means the group defaults match ZERO discovered objects in the environment

Repeat for each group, checking group members to validate if default patterns match anything in installed environment



Example of blank group members

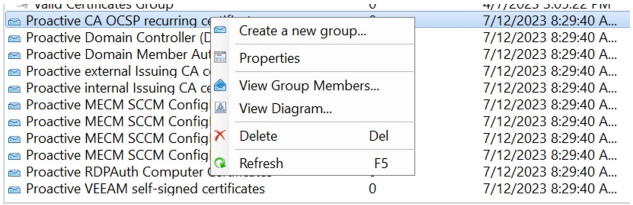


Close Group window 'Managed objects'

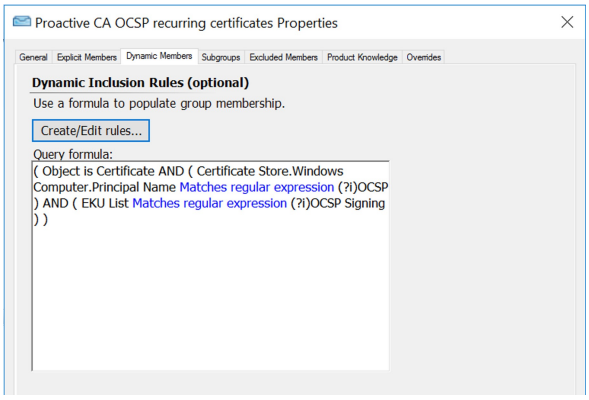
Adjust regular expression(s), as needed, via 'Valid certificate' view

Edit PKI groups

Right click (alternate mouse button)
Select Properties to edit group

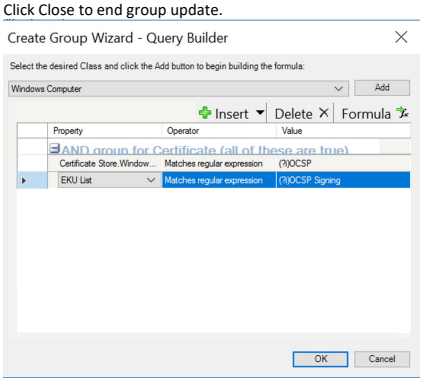


Click on 'Create/Edit rules' button



Regular Expression syntax allows | to delimit multiple strings
(?i) allows for case insensitive expressions (upper/lower case indifferent)

Adjust EKU list to match applicable certificate property for AD enrollment policy (Certificate TemplateName property)
Click OK
Click Close to end group update.



Update Group Overrides

The overrides must be accurately mapped to a group and GUID to show in Overrides.

Symptoms in SCOM console

- May cause the Overrides view in the Authoring Tab to error, or not load
- Overrides may not show up in SCOM, even if in the XML or MP/MPB file
- Does NOT transfer between management groups due to SCOM random GUID nature.

Tie to figure out what the GUID is for these groups when the PKI customizations pack is installed

From PowerShell on MS, paste the following commands:

```
get-scomclassinstance -DisplayName "Proactive CA OCSP recurring certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive Domain Member Auto-enrollment Computer certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive Domain Controller (DC) Kerberos authentication Auto-enrollment certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive RDPAuth Computer Certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive MECM SCCM ConfigMgrServerCert Auto-enrollment Computer Certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive MECM SCCM ConfigMgrClientCert Auto-enrollment Computer Certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive MECM SCCM ConfigMgrWebServerCert Auto-enrollment Computer Certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive MECM SCCM ConfigMgrWinPEImages Auto-enrollment
```

```
Computer Certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive internal Issuing CA certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive external Issuing CA certificates" | ft Id
get-scomclassinstance -DisplayName "Proactive MECM SCCM ConfigMgr SMS Issuing self-signed certs" |
ft Id
get-scomclassinstance -DisplayName "Proactive SolarWinds self-signed certs" | ft Id
get-scomclassinstance -DisplayName "Proactive Splunk self-signed certs" | ft Id
get-scomclassinstance -DisplayName "Proactive VEEAM self-signed certificates" | ft Id
```

NOTE the Id (GUID) outputs to update the PKI customizations pack XML for the ContextInstance values

Setting Certificate expiring alerts

Understand that tuning the certificate expiring alerts can be changed to organizational standards.

Out of the Box (OotB) values are as follows:

NOTE Adjust based on customer requirements, as needed

Default behavior is alerts 60 days before expiration, warning alert is created
warning, less than 30 days critical

Computer certificates 30 days before expiration, warning alert is created (can be controlled by AD
Enrollment policy at different interval)

Internal certs alert at 30 days

External certs alert at 60 days (due to additional time required to request/implement)

Example Overrides section

```
2272        <MonitorConfigurationOverride ID="Override.LifetimeThreshold.SystemCenterCentral.Utilities.Certificates.CertificateAboutToExpire.Monitor" Context="Utilities!SystemCenterCentr
2273          <Value>60</Value>
2274        </MonitorConfigurationOverride>
2275        <MonitorConfigurationOverride ID="Override.LifetimeThreshold.Group.SystemCenterCentral.Utilities.Certificates.CertificateAboutToExpire.Monitor" Context="Proactive.Computer.Ce
2276          <Value>30</Value>
2277        </MonitorConfigurationOverride>
2278        <MonitorConfigurationOverride ID="Override.LifetimeThreshold.Proactive.Internal.Issuing.CA.Group.SystemCenterCentral.Utilities.Certificates.CertificateAboutToExpire.Monitor"
2279          <Value>30</Value>
2280        </MonitorConfigurationOverride>
2281        <MonitorConfigurationOverride ID="Override.LifetimeThreshold.Proactive.External.Issuing.CA.Group.SystemCenterCentral.Utilities.Certificates.CertificateAboutToExpire.Monitor"
2282          <Value>60</Value>
2283        </MonitorConfigurationOverride>
2284        <MonitorPropertyOverride ID="Override.Disable.Group.SystemCenterCentral.Utilities.Certificates.CertificateValidity.Monitor" Context="Utilities!SystemCenterCentral.Utilities.C
2285          <Value>false</Value>
2286        </MonitorPropertyOverride>
```

Update the XML overrides in the XML of the PKI customizations pack

Time to update the PKI management pack so we get all our functionality properly configured.

Update Overrides with GUID Id values

Open your favorite text file editor like NotePad++, Visual Studio, Visual Code, Notepad, etc.

This article is documented with NotePad++

Navigation Steps:

From SCOM Console > Monitoring tab > Active Alerts
When you click on an alert, and choose Overrides > for a group
This is what the XML looks like (PKI example)

```
obe.SelfSignedCertificate.Discovery" Context="Utilities!SystemCenterCentral.Utilities.Certificates.LocalCertificateStore.Registry" Enforced="false" Discovery="Utilities!SystemCenterCentral.Utilities.Certif

.CertificateAboutToExpire.Monitor" Context="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate" ContextInstance="4af73d32-7c66-173f-8a05-5ecb40b1273f" Enforced="false" Monitor="Utilities!Syst

icates.CertificateAboutToExpire.Monitor" Context="Proactive.Computer.Certificates.Group" ContextInstance="2ad225e9-84d4-b3ac-a91e-1dcd8b541863" Enforced="false" Monitor="Utilities!SystemCenterCentral.Utili

CenterCentral.Utilities.Certificates.CertificateAboutToExpire.Monitor" Context="Proactive.Internal.Issuing.CA.Group" ContextInstance="44c5c4e2-b02f-b0f6-aa87-0d12e9b41642" Enforced="false" Monitor="Utiliti

CenterCentral.Utilities.Certificates.CertificateAboutToExpire.Monitor" Context="Proactive.External.Issuing.CA.Group" ContextInstance="e870e111-109c-a0c9-c892-173d086e8c7d" Enforced="false" Monitor="Utiliti

rtificates.CertificateAboutToExpire.Monitor" Context="Proactive.MECM.SCCM.ConfigMgrClientCert.Certificates.Group" ContextInstance="06bc0a9e-48a1-d265-8a06-3b029e77aee4" Enforced="false" Monitor="Utilities

rtificates.CertificateAboutToExpire.Monitor" Context="Proactive.MECM.SCCM.ConfigMgrServerCert.Certificates.Group" ContextInstance="5210bbfb-3eb0-1838-d988-3cb947e1b2e8" Enforced="false" Monitor="Utilities

s.Certificates.CertificateAboutToExpire.Monitor" Context="Proactive.MECM.SCCM.ConfigMgrWebServerCert.Certificates.Group" ContextInstance="8c1d2310-86b9-1ec5-3a71-9999314e6c4d" Enforced="false" Monitor="Uti

ies.Certificates.CertificateAboutToExpire.Monitor" Context="Proactive.MECM.SCCM.ConfigMgrWinPEImages.Certificates.Group" ContextInstance="f767fc75-ff57-9ec0-7447-28714e2a562d" Enforced="false" Monitor="Uti

ficates.CertificateAboutToExpire.Monitor" Context="Proactive.RDPAuth.Computer.Certificates.Group" ContextInstance="e13fb4d3-47e7-5bd6-d42b-e8bf6a09ee3b" Enforced="false" Monitor="Utilities!SystemCenterCent

Central.Utilities.Certificates.CertificateAboutToExpire.Monitor" Context="Proactive.Domain.Controller.Kerberos.AutoEnrollment.Certificates.Group" ContextInstance="da4f9759-6c4a-100b-77a5-ea20fc2fa531" Enfo
```

NOTE Domain Admin (or CA/Certificate SME) may be required to answer expiration values for alerts

Update PKI pack discoveries

Now that we have a list of the template names, we need to update the PKI discoveries.

Sometimes OCSP is NOT housed in an environment (N/A not applicable), so this group can be skipped.

Open XML in Notepad++ (helps with XML syntax through color coding)

Sort by TemplateName, to help see what templates are in your environment.
These values discovered, will be used to update the PKI SCOM groups
If not applicable, leave 'Pattern' section alone, group will have NO members

Example of Computer certificates

```
<Monitoring>
  <Discoveries>
    <Discovery ID="Proactive.CA.OCSP.Recurring.Certificates.Group.DiscoveryRule" Enabled="true" Target="Proactive.CA.OCSP.Recurring.Certificates.Group" ConfirmDelivery="false" Remotable="true" Priority="
    <Discovery ID="Proactive.Computer.Certificates.Group.DiscoveryRule" Enabled="true" Target="Proactive.Computer.Certificates.Group" ConfirmDelivery="false" Remotable="true" Priority="Normal">
      <Category>Discovery</Category>
      <DiscoveryTypes>
        <DiscoveryRelationship TypeID="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities" />
      </DiscoveryTypes>
      <DataSource ID="GroupPopulationDataSource" TypeID="SC!Microsoft.SystemCenter.GroupPopulator">
        <RuleId>$MPElement$</RuleId>
        <GroupInstanceId>$MPElement[Name="Proactive.Computer.Certificates.Group"]$</GroupInstanceId>
        <MembershipRules>
          <MembershipRule>
            <MonitoringClass>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]$</MonitoringClass>
            <RelationshipClass>$MPElement[Name="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities"]$</RelationshipClass>
            <Expression>
              <RegExExpression>
                <ValueExpression>
                  <Property>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]/TemplateName$</Property>
                </ValueExpression>
                <Operator>MatchesRegularExpression</Operator>
                <Pattern>(?i)Computer Template|DomainComputers|Domain Computers|Domain Controller|RemoteDesktop</Pattern>
              </RegExExpression>
            </Expression>
          </MembershipRule>
        </MembershipRules>
      </DataSource>
    </Discovery>
```

eros template
ify Kerberos enrollment template is applicable for your environment. Adjust template name(s) to adjust pattern for group members

```
    <Discovery ID="Proactive.Domain.Controller.Kerberos.AutoEnrollment.Certificates.Group.DiscoveryRule" Enabled="true" Target="Proactive.Domain.Controller.Kerberos.AutoEnrollment.Certificates.Group" Con
      <Category>Discovery</Category>
      <DiscoveryTypes>
        <DiscoveryRelationship TypeID="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities" />
      </DiscoveryTypes>
      <DataSource ID="GroupPopulationDataSource" TypeID="SC!Microsoft.SystemCenter.GroupPopulator">
        <RuleId>$MPElement$</RuleId>
        <GroupInstanceId>$MPElement[Name="Proactive.Domain.Controller.Kerberos.AutoEnrollment.Certificates.Group"]$</GroupInstanceId>
        <MembershipRules>
          <MembershipRule>
            <MonitoringClass>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]$</MonitoringClass>
            <RelationshipClass>$MPElement[Name="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities"]$</RelationshipClass>
            <Expression>
              <RegExExpression>
                <ValueExpression>
                  <Property>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]/TemplateName$</Property>
                </ValueExpression>
                <Operator>MatchesRegularExpression</Operator>
                <Pattern>(?i)DCKerberos</Pattern>
              </RegExExpression>
            </Expression>
          </MembershipRule>
        </MembershipRules>
      </DataSource>
    </Discovery>
```

RDP enrollment templates
Verify if applicable for your environment.
Adjust template name(s) to adjust pattern for group members

```
    <Discovery ID="Proactive.RDPAuth.Computer.Certificates.Group.DiscoveryRule" Enabled="true" Target="Proactive.RDPAuth.Computer.Certificates.Group" ConfirmDelivery="false" Remotable="true" Priority="No
      <Category>Discovery</Category>
      <DiscoveryTypes>
        <DiscoveryRelationship TypeID="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities" />
      </DiscoveryTypes>
      <DataSource ID="GroupPopulationDataSource" TypeID="SC!Microsoft.SystemCenter.GroupPopulator">
        <RuleId>$MPElement$</RuleId>
        <GroupInstanceId>$MPElement[Name="Proactive.RDPAuth.Computer.Certificates.Group"]$</GroupInstanceId>
        <MembershipRules>
          <MembershipRule>
            <MonitoringClass>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]$</MonitoringClass>
            <RelationshipClass>$MPElement[Name="MSIGL!Microsoft.SystemCenter.InstanceGroupContainsEntities"]$</RelationshipClass>
            <Expression>
              <RegExExpression>
                <ValueExpression>
                  <Property>$MPElement[Name="Utilities!SystemCenterCentral.Utilities.Certificates.Certificate"]/TemplateName$</Property>
                </ValueExpression>
                <Operator>MatchesRegularExpression</Operator>
                <Pattern>(?i)RDPAuth|RemoteDesktop</Pattern>
              </RegExExpression>
            </Expression>
          </MembershipRule>
        </MembershipRules>
      </DataSource>
    </Discovery>
```

Update PKI pack for import

Previously, we updated the group overrides with GUIDs from environment.

Version the pack

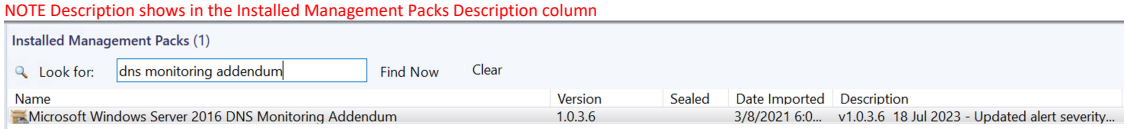
Update pack version, to

```
<?xml version="1.0" encoding="utf-8"?><ManagementPack ContentReadable="true" SchemaVersion="2.0"
  <Manifest>
    <Identity>
      <ID>Proactive.PKI.System.Center.Central.Utilities.Certificates.Customizations</ID>
      <Version>1.0.1.2</Version>
    </Identity>
    <Name>Proactive PKI System Center Central Utilities Certificates Customizations</Name>
    <References>
```

Update DisplayStrings description for pack

Scroll down to DisplayStrings section, to update description with the version and what was changed.

NOTE Description shows in the Installed Management Packs Description column



Example Description

```
2348    <LanguagePacks>
2349      <LanguagePack ID="ENU" IsDefault="false">
2350        <DisplayStrings>
2351          <DisplayString ElementID="Proactive.PKI.System.Center.Central.Utilities.Certificates.Customizations">
2352            <Name>Proactive PKI System Center Central Utilities Certificates Customizations</Name>
2353            <Description>
2354  v1.0.1.3  27 Jul 2023 Override GUID audit, fixed overrides for RDPAuth and Kerberos groups to warning
2355  v1.0.1.2   6 Jul 2023 Splunk, SMSIssued, and VEEAM certificate validity monitor overrides
2356  v1.0.1.0  24 Apr 2023 Override groups for invalid certificate alerts, additional certificate store workflows for Remote Desktop registry store
2357  v1.0.0.8  13 Apr 2023 Updated with Remote Desktop store DS/PA/Discovery per Cyber team request
2358  v1.0.0.5  24 Feb 2023 Updated with Self-signed certs for SCCM/MECM, SolarWinds, Splunk, and VEEAM
2359  v1.0.0.4  25 Jan 2023 Updated to human readable content, created Issuer/regex groups for different cert alert actions
2360  v1.0.0.1  19 Sep 2022 Updated for Computer cert template group
2361  v1.0.0.0   3 Aug 2020 Created PKI certificate customizations pack</Description>
2362          </DisplayString>
```

Save pack to local non-system disk repository > import into SCOM