Troubleshoot and Enable Debugs on ISE

Contents

Introduction

Debug Log Configuration

- Problem: Profiling
- Problem: Licensing
- Problem: Posture
- Problem: Guest Portal
- Problem: dot1x/mab
- Problem: Replication
- Problem: SAML-Related Issues
- Problem: Application Server Issues
- Problem: Sponsor Portal
- Problem: BYOD portal/Onboarding
- Problem: MDM
- Problem: Certificate Provisioning Portal
- Problem: My Devices Portal
- Problem: TrustSec
- Problem: Vulnerability Assessment and Trust Centric NAC
- Problem: ODBC Identity Store Related Issues
- Problem: RBAC Issues
- Problem: pxGrid
- Problem: Log/Reports
- Problem: Active Directory
- Problem: PassiveID
- Problem: REST Services
- Problem: TACACS
- Problem: Wireless Setup
- Problem: Context Visibility
- Problem: RabbitMQ Messaging
- Problem: Light Session Directory
- Problem: SSE Connector/Smart Call Home
- Problem: UDN
- Problem: Endpoint Scripts
- LDAP

Debugs Required to Troubleshoot more Generic Issues

- Problem:PortalIssues
- Problem: Policy and Rules Evaluation Issues
- Problem: PAN failover
- Problem: IP Access Restriction
- Problem: REST Store

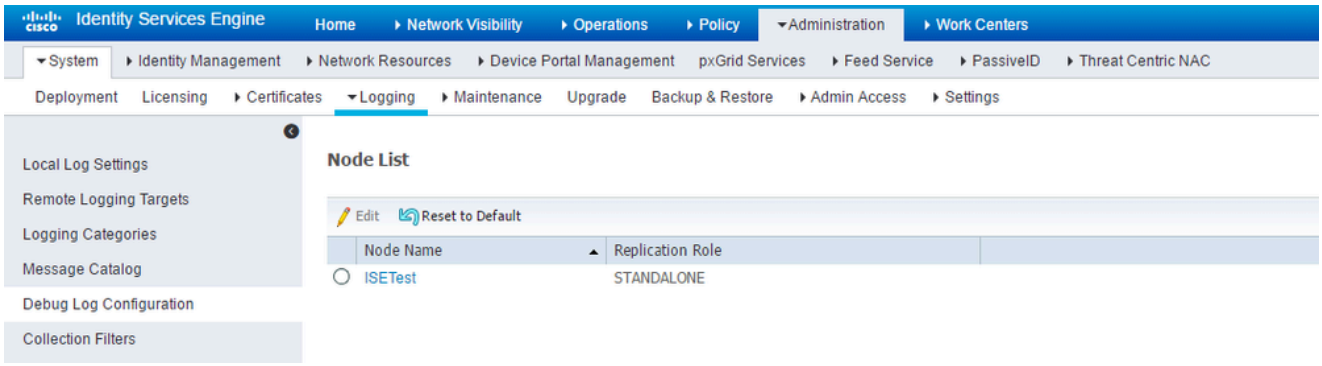
Introduction

This document describes how to troubleshoot and debug to enable when a specific issue occurs on Identity Service Engine (ISE).

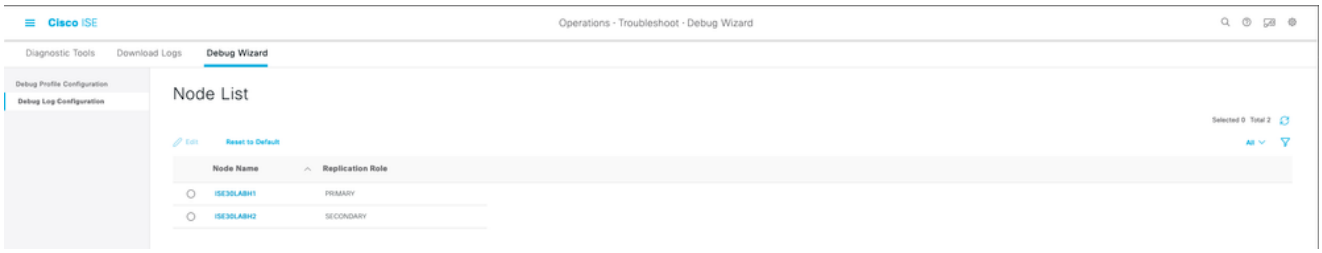
Debug Log Configuration

ISE generates logs based on the configuration of the log level set for different types of features. Use these instructions to change those settings to set the log to debug level.

1. For ISE 2.x versions, navigate to **Administration > System > Logging > Debug log configuration**:

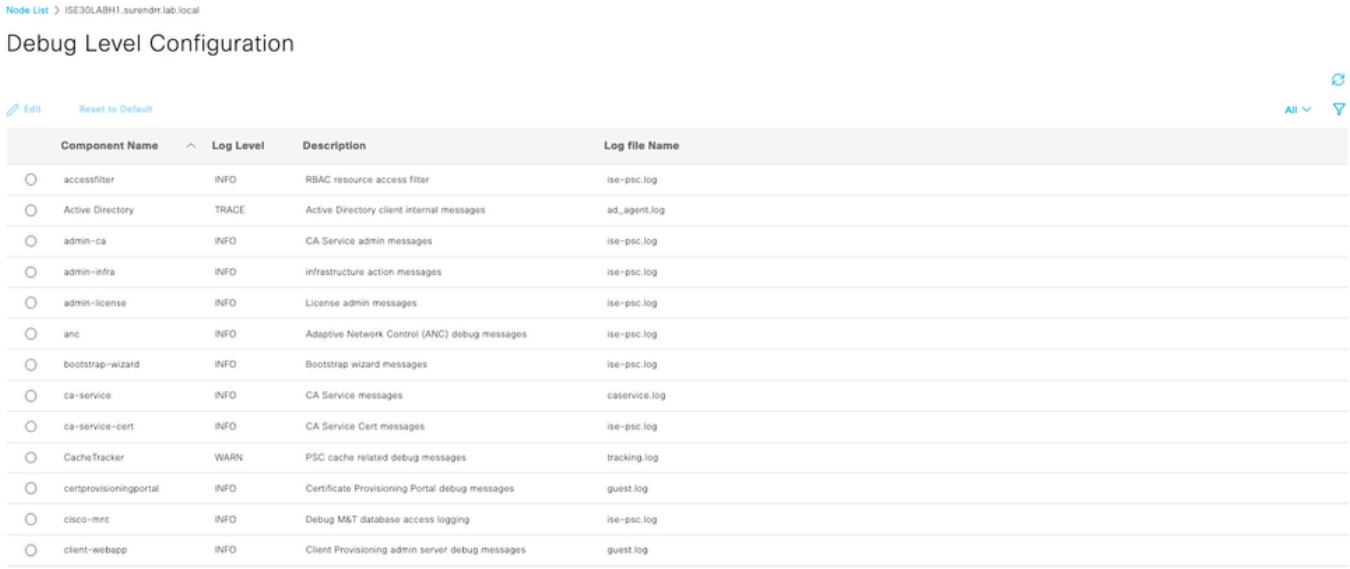


For ISE versions 3.x, navigate to **Operations > Troubleshoot > Debug Wizard > Debug Log Configuration**:



2. Choose the node which is affected/or causes the issue and click **Edit**.

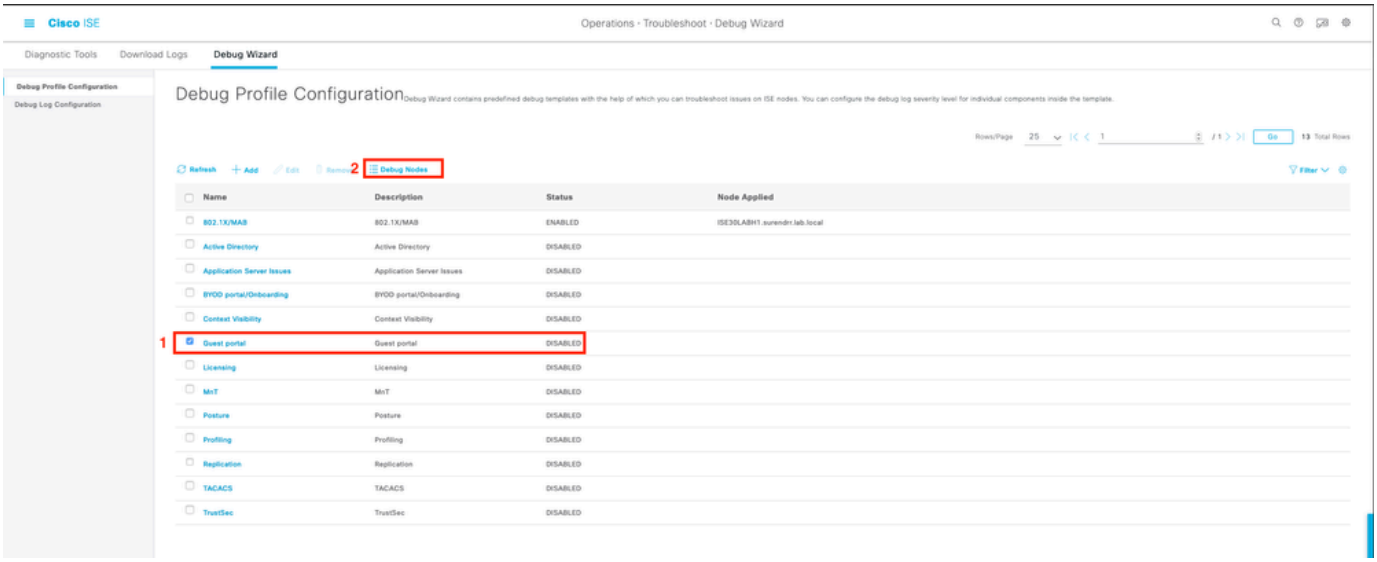
3. A list of various log attributes come up as shown in the image.

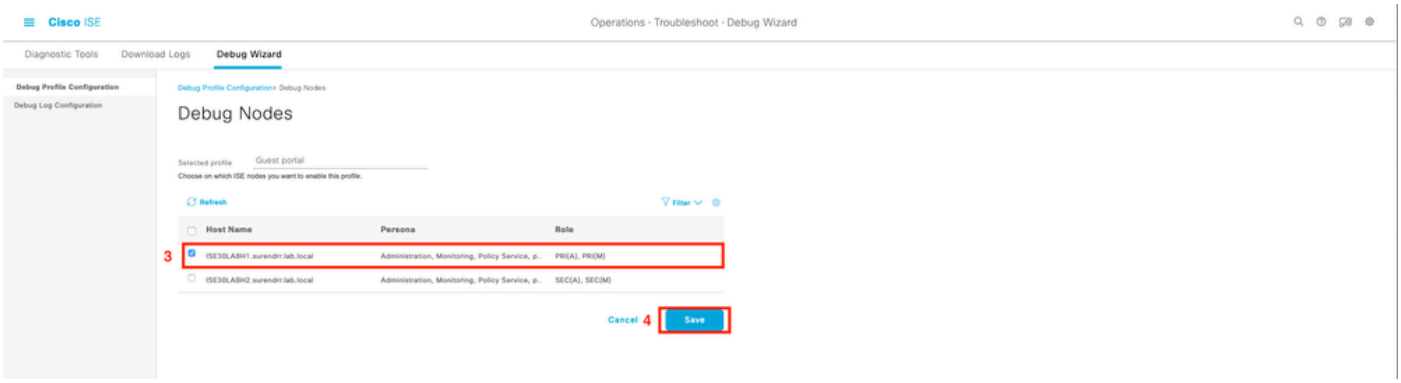


The list in the preceding image is not complete, but this is the place where the log level of certain services can be enabled.

All the log configurations for any feature described here can be set from this location. This section is referred to as the debugs page in related documentation.

Alternatively for ISE 3. x versions, one can choose to enable debugs by feature as well at **Operations** > **Troubleshoot** > **Debug Wizard** > **Debug Profile Configuration** and choose the node to apply those debugs as shown here:





4. After the appropriate debugs are enabled (which are given for specific issues in the next sections), reproduce/recreate the issue.

5. Record the timestamps at which the issue is reproduced.

6. Record the endpoint ID (MAC Addresses) or IP Addresses of the clients that were tested.

7. Set the log levels to their defaults as you choose the attribute and click **Reset to Default**.

8. Navigate to **Operations** > **Troubleshoot** > **Download logs**. Choose the **node** on which the logs must be collected.

9. The support bundle can be found under **Operations** > **Troubleshoot** > **Download Logs** > (select the node on which the issue was reproduced/seen).

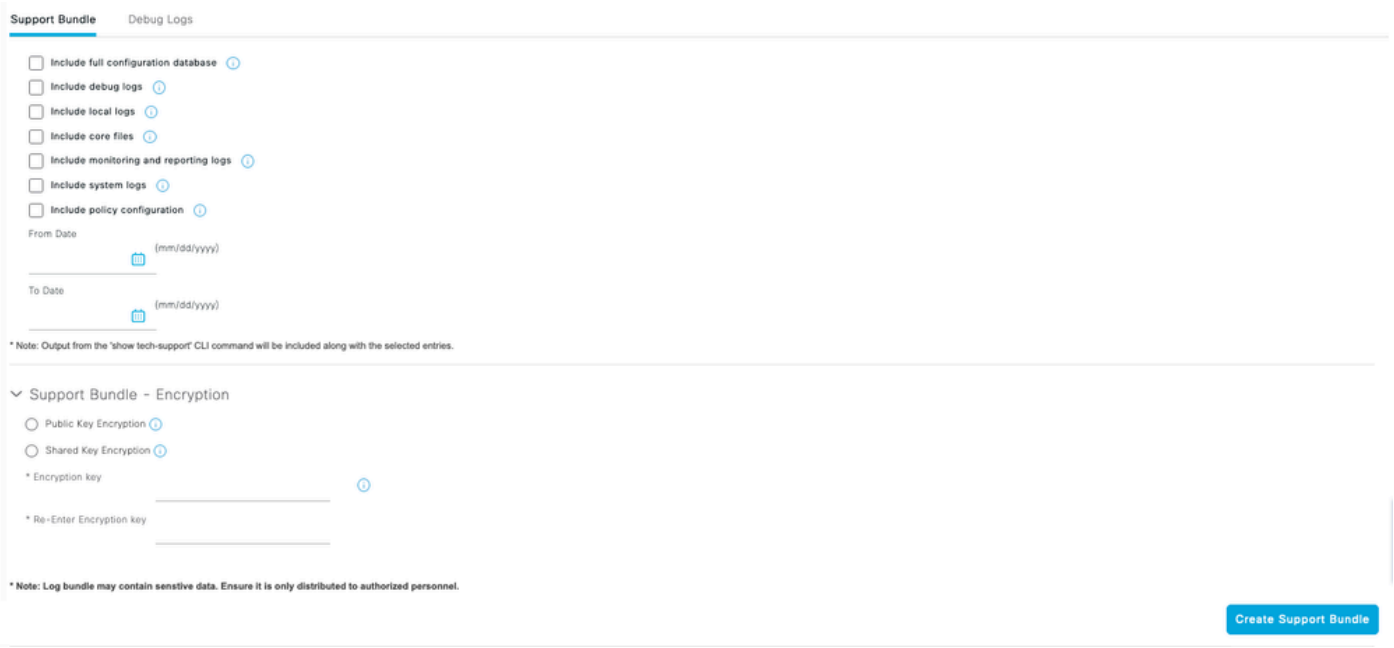
10. These options are used to generate the file:

[ ] Include full configuration database.
[x] Include debug logs.
[x] Include local logs.
[ ] Include core files.
[x] Include monitor- and report logs.
[x] Include system logs.

Set the encryption key to **<Encryption key of choice>**.

Choose the (time range) **days** on which the issue is recreated/seen.

11. In order to collect the support bundle, click the **download** button.



Problem: Profiling

Attributes to be set to debug level:

- profiler (profiler.log)
- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise.psc.log)

Note: When you set the runtime-AAA to debug, it sets prrt-JNI also to debug level. This is expected. If you enable runtime debugs, it can have significant performance issues under heavy load. It is recommended to consult with TAC or enable the debugs in a maintenance window to troubleshoot problems.

Problem: Licensing

Attributes to be set to debug level:

- License (ise-psc.log)
- admin-license (ise-psc.log)

Problem: Posture

Attributes to be set to debug level:

- posture (ise-psc.log)
- portal (guest.log)
- provisioning (ise-psc.log)
- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise-psc.log)
- swiss (ise-psc.log)
- client-webapp (guest.log)

Problem: Guest Portal

Attributes to be set to debug level:

- guestaccess (guest.log)
- guest-admin (guest.log)
- guest-access-admin (guest.log)
- profiler (profiler.log)
- runtime-AAA (prrt-server.log)
- saml (guest.log) (enable this only if saml is in use)
- nsf (guest.log)
- nsf-session (guest.log)

Problem: dot1x/mab

Attributes to be set to debug level:

- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise-psc.log)

Problem: Replication

Attributes to be set to debug level:

- Replication-Deployment (replication.log and ise-psc.log)
- Replication-JGroup (replication.log and ise-psc.log)
- Replication Tracker (tracking.log)
- hibernate (hibernate.log)
- JMS (replication.log)

Problem: SAML-Related Issues

Attributes to be set to debug level:

- opensaml (ise-psc.log)
- saml (ise-psc.log)

Problem: Application Server Issues

Attributes to be set to debug level:

- org-apache (appserver/catalina.out)
- org-apache-cxf (appserver/catalina.out)
- org-apache-digester (appserver/catalina.out)

Problem: Sponsor Portal

Attributes to be set to debug level:

- sponsorportal (ise-psc.log)
- portal (guest.log)
- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise-psc.log)

Problem: BYOD portal/Onboarding

Attributes to be set to debug level:

- client (guest.log)
- client-webapp (guest.log)
- scep (ise-psc.log)
- ca-service (ise-psc.log)
- admin-ca (ise-psc.log)
- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise-psc.log)
- profiler (profiler.log)

Problem: MDM

Attributes to be set to TRACE level:

- portal (guest.log)

- mdmportal (ise-psc.log)
- external-mdm (ise-psc.log)
- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise-psc.log)

Problem: Certificate Provisioning Portal

Attributes to be set to debug level:

- ca-service (caservice.log)
- admin-ca (ise-psc.log)
- clientprovisioningportal (ise-psc.log)
- portal (guest.log)

Problem: My Devices Portal

Attributes to be set to debug level:

- portal (guest.log)
- mydevices (ise-psc.log)
- profiler (profiler.log)

Problem: TrustSec

Attributes to be set to debug level:

- sxp (sxp_appserver/sxp.log)
- sgtbinding (sxp_appserver/sxp.log)
- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise-psc.log)

Problem: Vulnerability Assessment and Trust Centric NAC

Attributes to be set to debug level:

- va-runtime (varuntime.log)
- va-service (varuntime.log and vaaggregation.log)
- TC-NAC (ise-psc.log)
- anc (ise-psc.log)

Problem: ODBC Identity Store Related Issues

Attributes to be set to debug level:

- odbc-id-store (prrt-management.log and prrt-server.log)

Problem: RBAC Issues

Attributes to be set to debug level:

- accessfilter (ise-psc.log)

Problem: pxGrid

Attributes to be set to TRACE level:

- pxgrid (pxgrid-server.log)
- infrastructure (ise-psc.log)
- ers (ise-psc.log)

Problem: Log/Reports

Attributes to be set to debug level:

- cpm-mnt (ise-psc.log)
- report (report.log)
- cisco-mnt (ise-psc.log)
- runtime-logging (prrt-server.log)
- collector (collector.log)

Problem: Active Directory

Attributes to be set to TRACE level:

- Active Directory (ad_agent.log)
- identity-store-AD (ad_agent.log)
- runtime-AAA (prrt-server.log)
- nsf (ise-psc.log)
- nsf-session (ise-psc.log)

Problem: PassiveID

Attributes to be set to debug level:

- PassiveID (passiveid*)
- runtime-AAA (prrt-server.log)
- Active Directory (ad)_agent.log)
- collector (collector.log) (On PassiveID,MnT nodes and on active pxGrid node if sessions are published.)
- pxGrid (pxgrid/) (On secondary MnT and active pxGrid node if the sessions are published.)

Problem: REST Services

Attributes to be set to debug level:

- ers (ise-psc.log)

Problem: TACACS

Attributes to be set to debug level:

- runtime-AAA (prrt-server.log)

Problem: Wireless Setup

Attributes to be set to debug level:

- wirelesssetuphelper (/wifisetup)

Problem: Context Visibility

Attributes to be set to debug level:

- vcs (ise-elasticsearch.log/vcs.log)
- vcs-db (ise-elasticsearch.log/vcs.log)

Problem: RabbitMQ Messaging

- ise-messaging (ise-messaging/)

Problem: Light Session Directory

- Light-Session-Directory (lsd.log)

Problem: SSE Connector/Smart Call Home

- sse-connector (connector.log)

Problem: UDN

- UDN (udn.log)

Problem: Endpoint Scripts

- endpoint-script (ise-psc.log)

LDAP

- runtime-aaa (prrt-server.log)

Debugs Required to Troubleshoot more Generic Issues

Problem: Portal Issues

Attributes to be set to debug level:

- portal (guest.log)
- portal-session-manager (guest.log)
- portal-web-action (guest.log)
- previewportal (preview section in every portal configuration page) (guest.log)

Problem: Policy and Rules Evaluation Issues

Attributes to be set to debug level:

- RuleEngine-Policy-IDGroups (ise-psc.log)
- RuleEngine-Attributes (ise-psc.log)
- Policy-Engine (ise-psc.log)

- epm-pdp (ise-psc.log)
- epm-pip (ise-psc.log)

Problem: PAN failover

- Infrastructure (ise-psc.log)
- PanFailover (ise-psc.log)

Problem: IP Access Restriction

- Infrastructure (ise-psc.log)
- Admin-infra (ise-psc.log)
- NSF (ise-psc.log)

Problem: REST Store

- Rest-id-store (rest-id-store.log)