



Learning Paths - Level 01

# Troubleshooting

#LIFERAYENABLEMENT

*For Liferay and Liferay Official Partners use only. Content Applicable for Liferay 2023-Q4 release and beyond. Some features may not be available in earlier releases.*

# Session Breakdown

5 min	01	Introduction + Case Study Recap
8 min	02	Identifying and Classifying Problems
10 min	03	Liferay Support
7 min	04	Troubleshooting Aides
6 min	05	Logging
5 min	06	APM Tools
5 min	07	Troubleshooting Matrix



# Part 01

## Introduction and Session Scope



What do we mean by *Troubleshooting* and why is it important?

# Introduction

- Identifying abnormal results and tracing the root causes resulting in a resolution and return to normal results.
- Often requires working with Liferay Support for help with product or platform issues.



What we are planning to cover in this session

## Session Scope

- Identifying and Classifying Problems
- Liferay Support
- Troubleshooting Aides
- Logging
- APM Tools



# Part 02

## Identifying and Classifying Problems



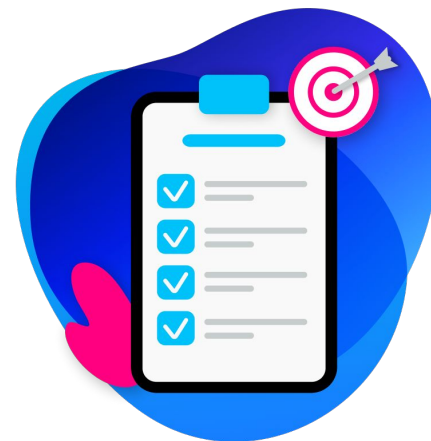
# Identifying Problems

1. Abnormal or unexpected result.
2. Expected result but takes longer than normal.
3. An unexpected change (i.e. new UI element).
4. An outright error or exception.



# Classifying Problems

1. Product Issues
2. Customization Issues
3. Usage Issues
4. Abuse Issues





# Part 03

## Liferay Support



# Three Rules for Working with Liferay Support

- Open Support tickets as soon as possible.
- Overload the ticket with as much context as possible.
- When Support asks for something, provide it as soon as possible.



# Part 04

## Troubleshooting Aides



# Tools You Can Use

1. Support
2. Logs
3. APM Tools (Glowroot)
4. Thread/Heap Dumps
5. 'Vanilla' Liferay
6. Liferay Community



# Part 05

## Logging



## Logging

# Logging is Key to Understanding

1. Use log levels effectively
2. Log key logic decisions/outcomes for later diagnosis
3. Log exceptions with stack traces
4. Log in customizations as well as CX



# Part 06

## APM Tools



# Use APMs to Alert Proactively

1. Be Proactive instead of Reactive
2. Historic and holistic view of what was happening at the time
3. Liferay recommends and uses Glowroot, but any APM is fine





# Part 07

## Troubleshooting Matrix



# What is available in each environment?

	SaaS	PaaS	Self Hosted
Liferay Support	✓	✓	✓
Glowroot/APM	✓	✓	✓
Liferay Logs	✓	✓	✓
CX Logs	✓	✓	✓
Thread Dumps	✗	✓	✓
Heap Dumps	✗	✓	✓



When you want to insert a nail into a piece of wood, don't do anything fancy or glamorous. Just take the hammer and hit the thing until it's in.

Thank you