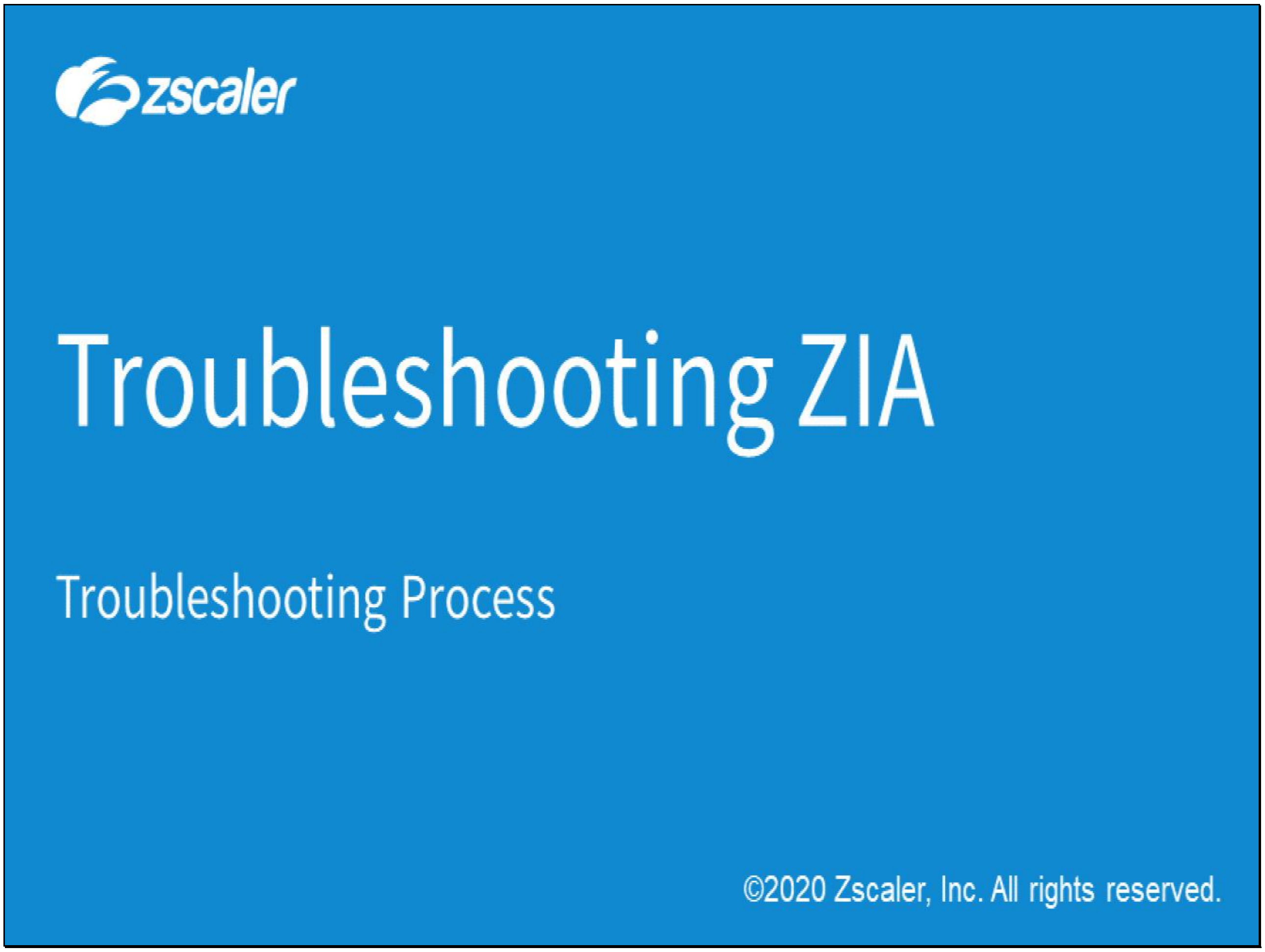
## Slide 1 - Troubleshooting ZIA



# Troubleshooting ZIA

Troubleshooting Process

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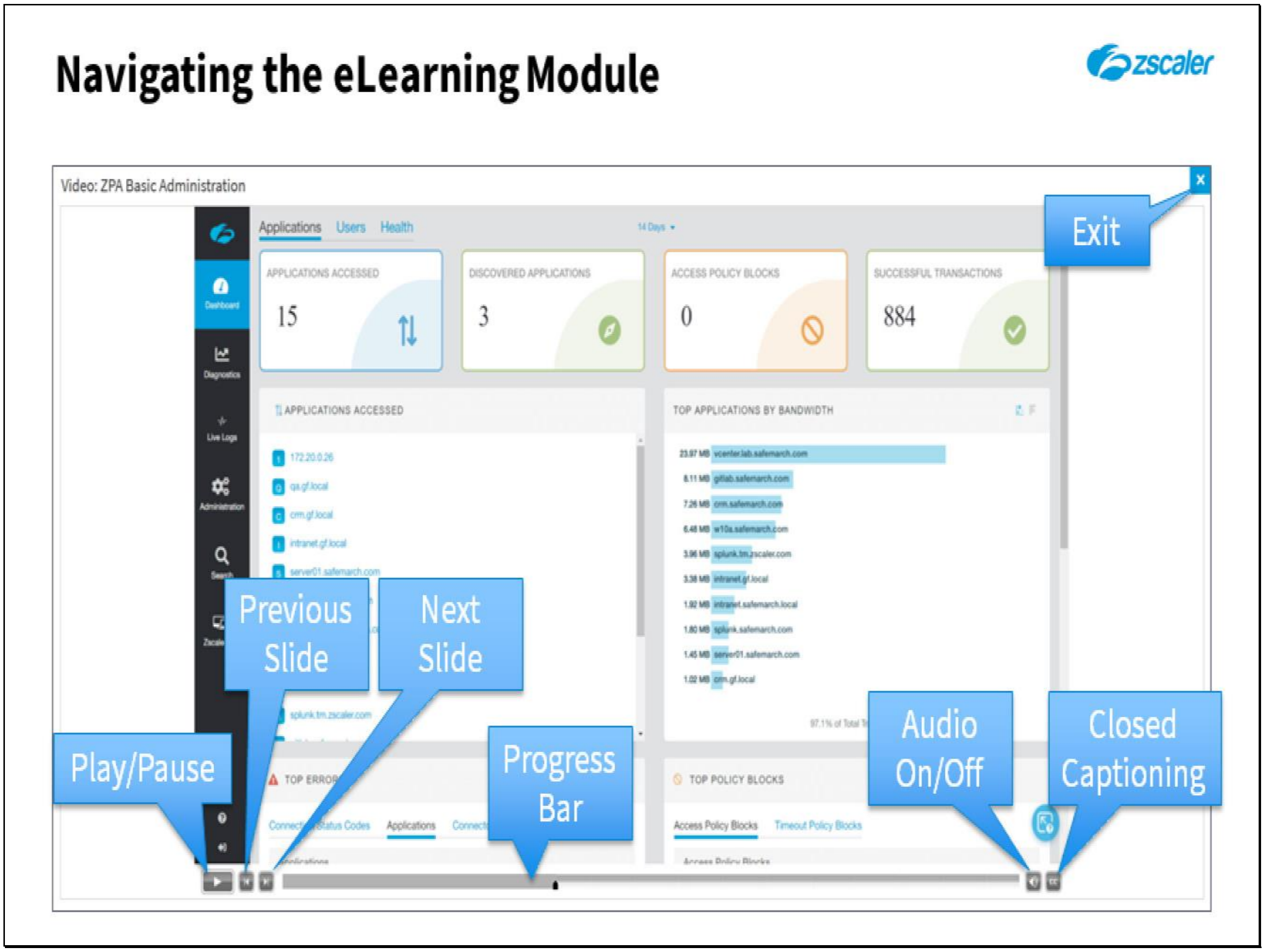
### Slide notes

Welcome to this training module on the process for troubleshooting Zscaler Internet Access (ZIA).

## Slide 2 - Navigating the eLearning Module

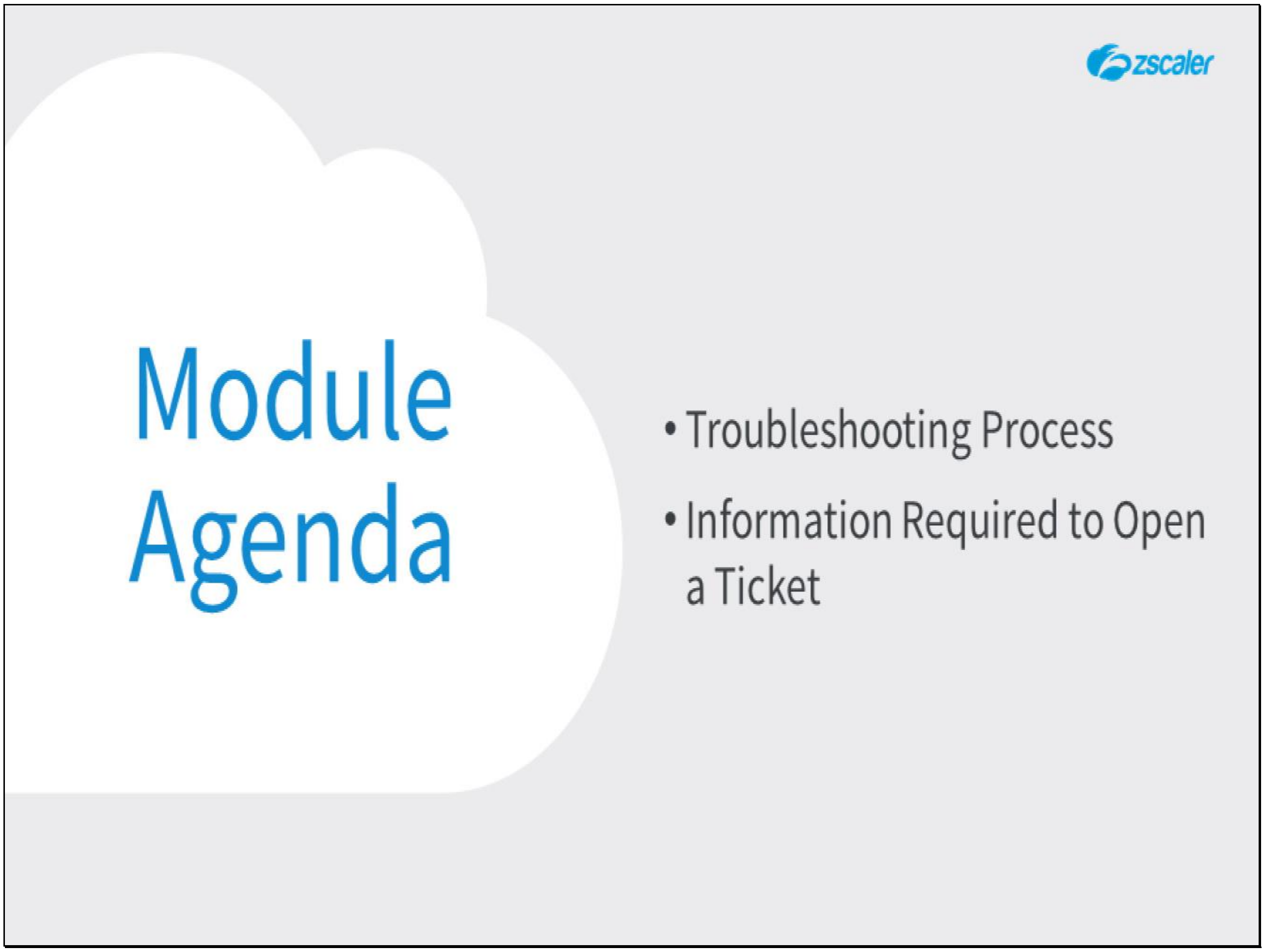


### Slide notes

Here is a quick guide to navigating this module. There are various controls for playback including **play** and **pause**, **previous**, and **next** slide.

You can also mute the audio or enable Closed Captioning which will cause a transcript of the module to be displayed on the screen. Finally, you can click the **X** button at the top to exit.

**Slide 3 - Module Agenda**



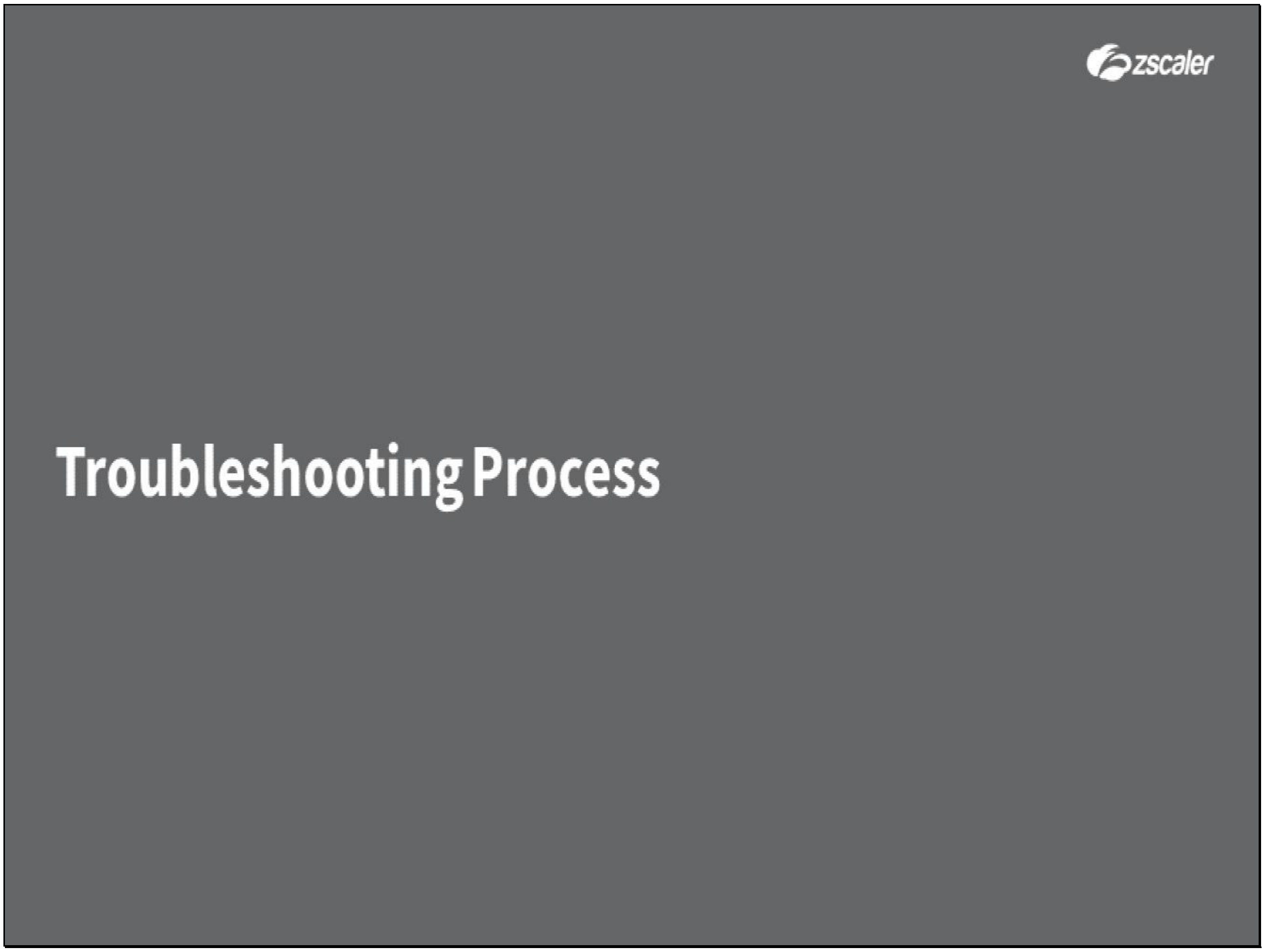
Module Agenda

- Troubleshooting Process
- Information Required to Open a Ticket

**Slide notes**

In this module we look at the process for troubleshooting internet connectivity through Zscaler, and at the information that is required in order to open a support ticket.

### Slide 4 - Troubleshooting Process



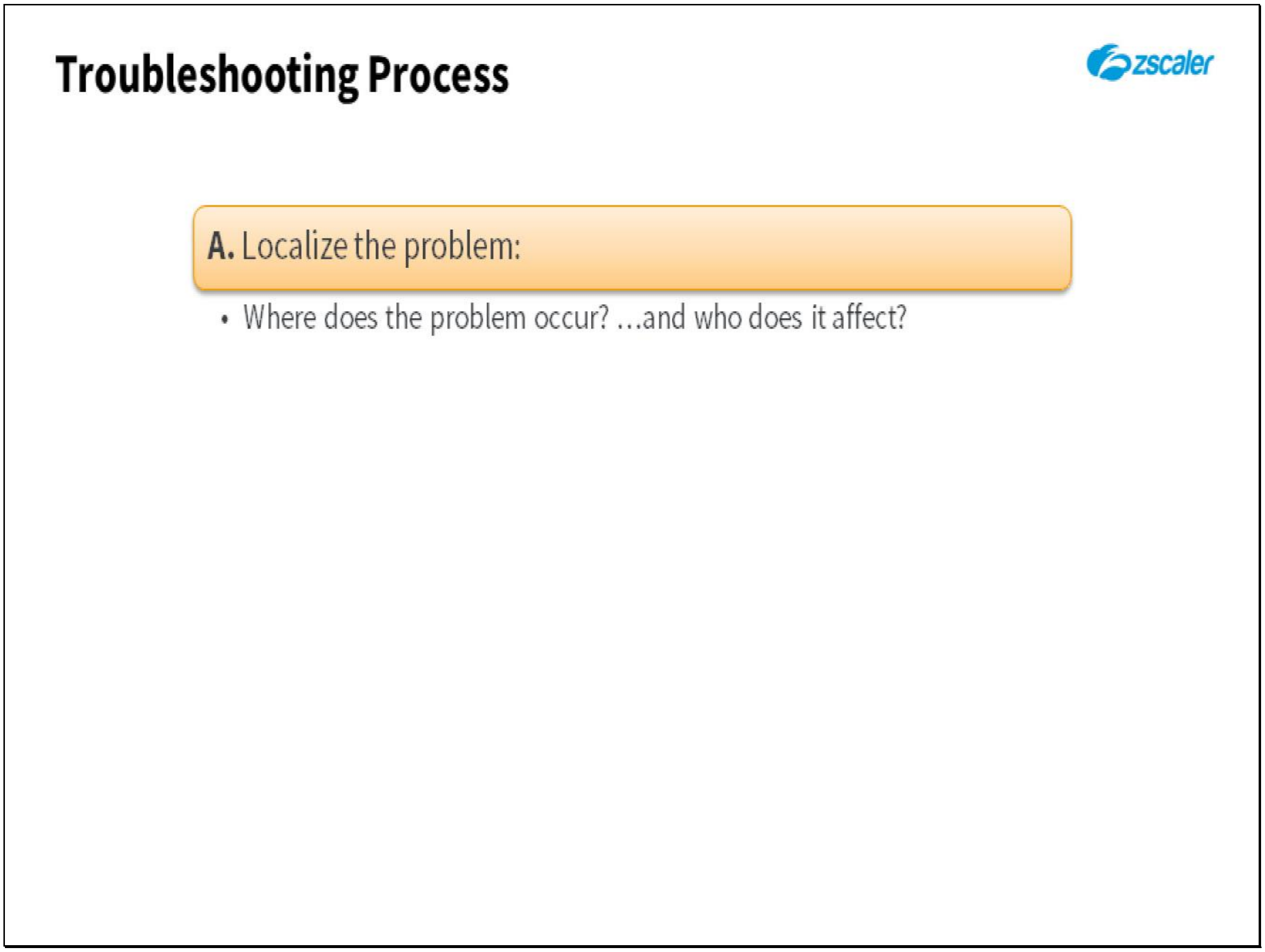
zscaler

Troubleshooting Process

**Slide notes**

In the first section, we will discuss an approach to troubleshooting internet connectivity through Zscaler.

## Slide 5 - Troubleshooting Process



### Troubleshooting Process

**A.** Localize the problem:

- Where does the problem occur? …and who does it affect?

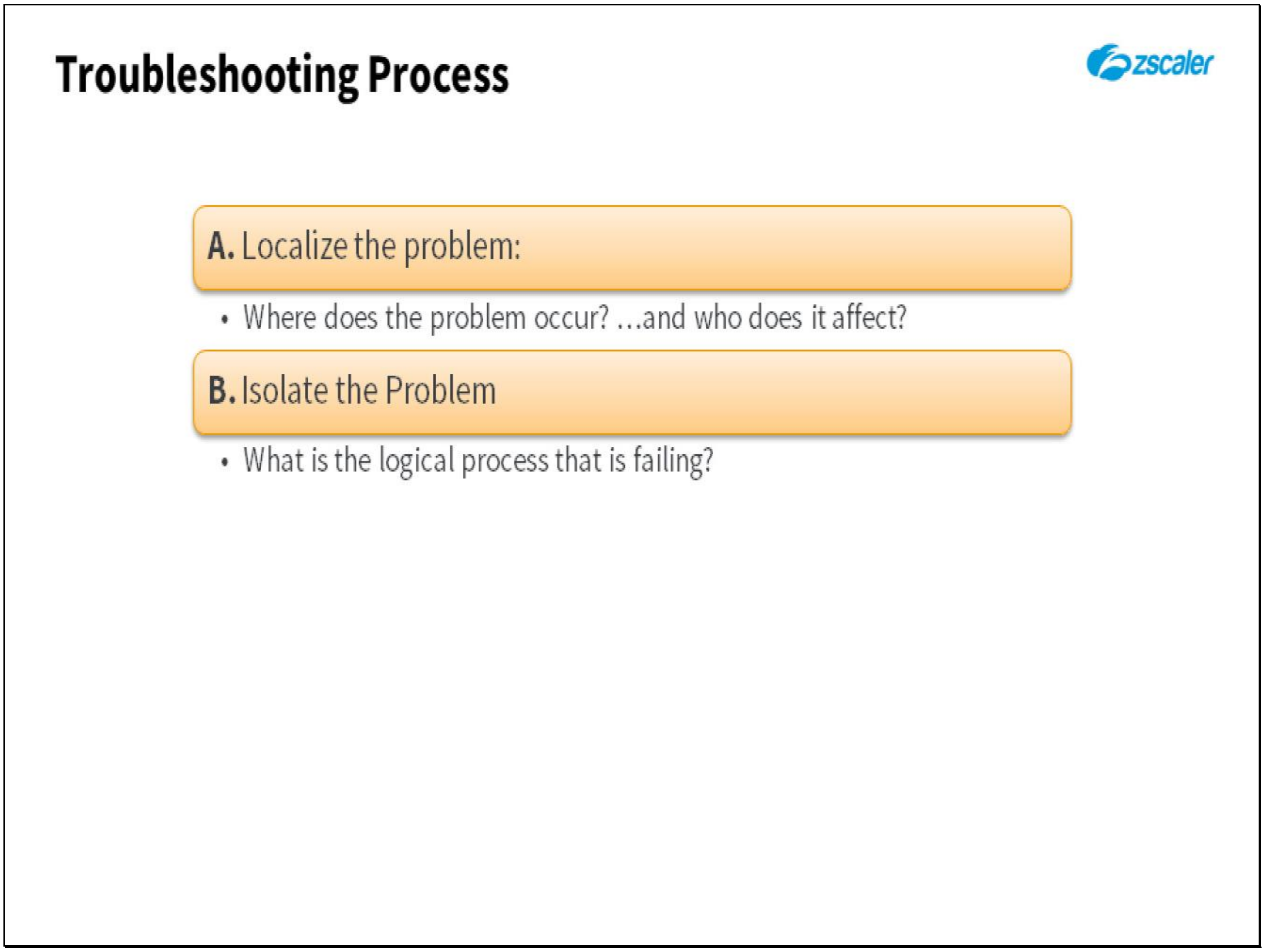
**Slide notes**

The first step in troubleshooting any connectivity issue, is to identify as far as possible precisely where the connection is failing, and who is impacted by the failure. With an Internet Access connection through Zscaler, an issue can occur in one of a number of places: On the end user's device; on the local network; between the end user's location Firewall and Zscaler; between the end user and Zscaler (if they are connecting directly);

between the end user and the  Identity Provider (IdP); between the IdP and Zscaler; between Zscaler and The Internet; or with the destination service. Your goal here is to home in as quickly as possible to the 'failure domain', to allow you to focus your troubleshooting efforts on the actual problem area.

Many standard networking tools, and some specialized Zscaler tools are available to assist in this process, such as: a simple 'ping' to the destination service; a 'traceroute' to the destination service; the Zscaler Proxy Test Website; or even the Zscaler Analysis Tool.

### Slide 6 - Troubleshooting Process



## Troubleshooting Process

**A.** Localize the problem:

- Where does the problem occur? …and who does it affect?

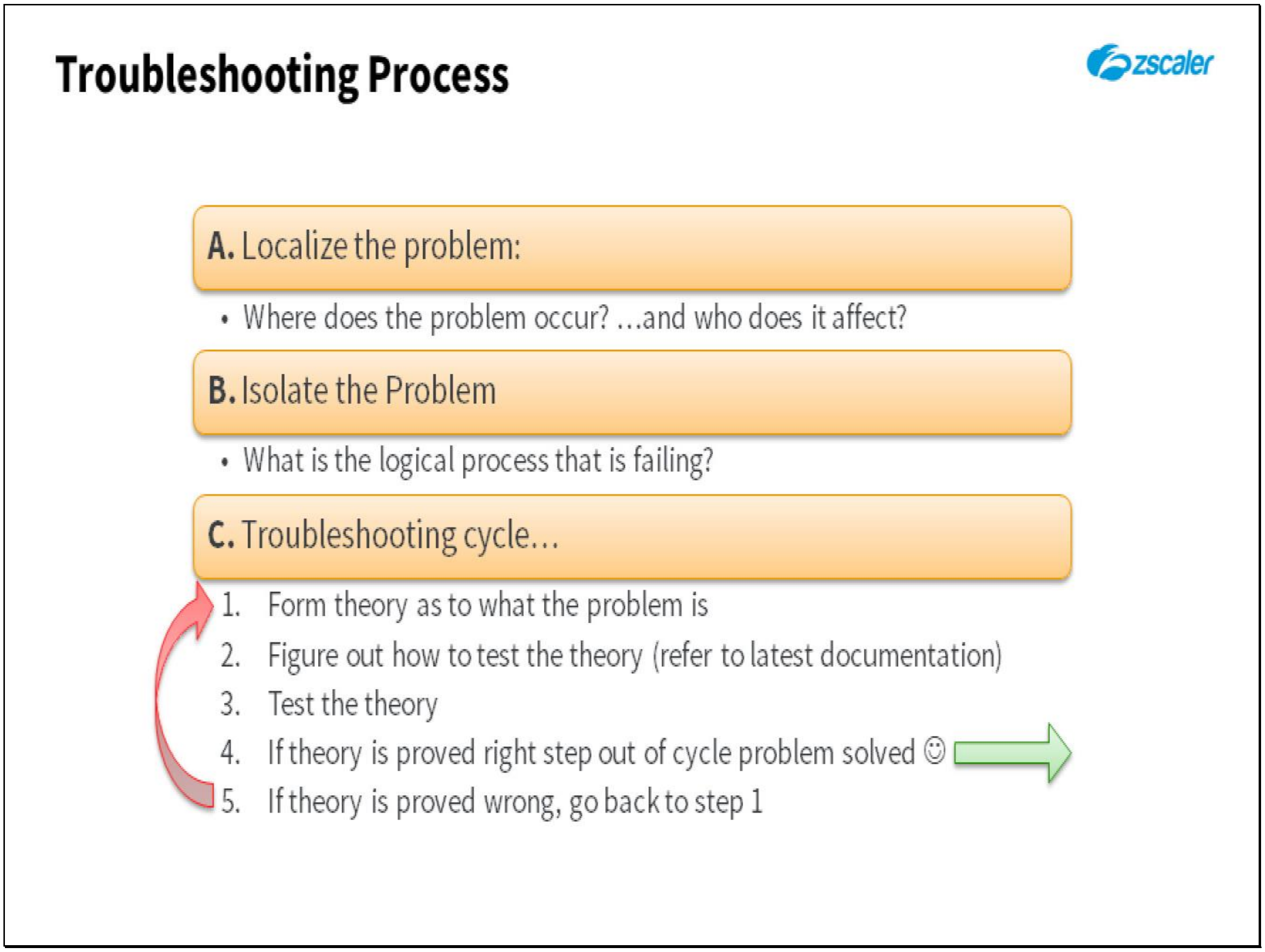
**B.** Isolate the Problem

- What is the logical process that is failing?

### Slide notes

Having localized the problem, the next stage is to isolate precisely what logical process is failing, to allow you to identify a solution to the problem: Are there network connectivity problems in general?  Is there a connection issue between specific infrastructure entities? Is there some form of misconfiguration, either of the network connections, or of a Zscaler Policy?

**Slide 7 - Troubleshooting Process**



# Troubleshooting Process

**A.** Localize the problem:

- Where does the problem occur? ...and who does it affect?

**B.** Isolate the Problem

- What is the logical process that is failing?

**C.** Troubleshooting cycle...

1. Form theory as to what the problem is
2. Figure out how to test the theory (refer to latest documentation)
3. Test the theory
4. If theory is proved right step out of cycle problem solved ☺
5. If theory is proved wrong, go back to step 1

**Slide notes**

Having localized and isolated the problem, you then need to come up with a solution to it, which is best done using a troubleshooting cycle such as the one shown here.

To start the cycle, you must leverage your knowledge and experience as a network or support engineer to form a theory as to what problem might cause the symptom(s) that you are seeing.

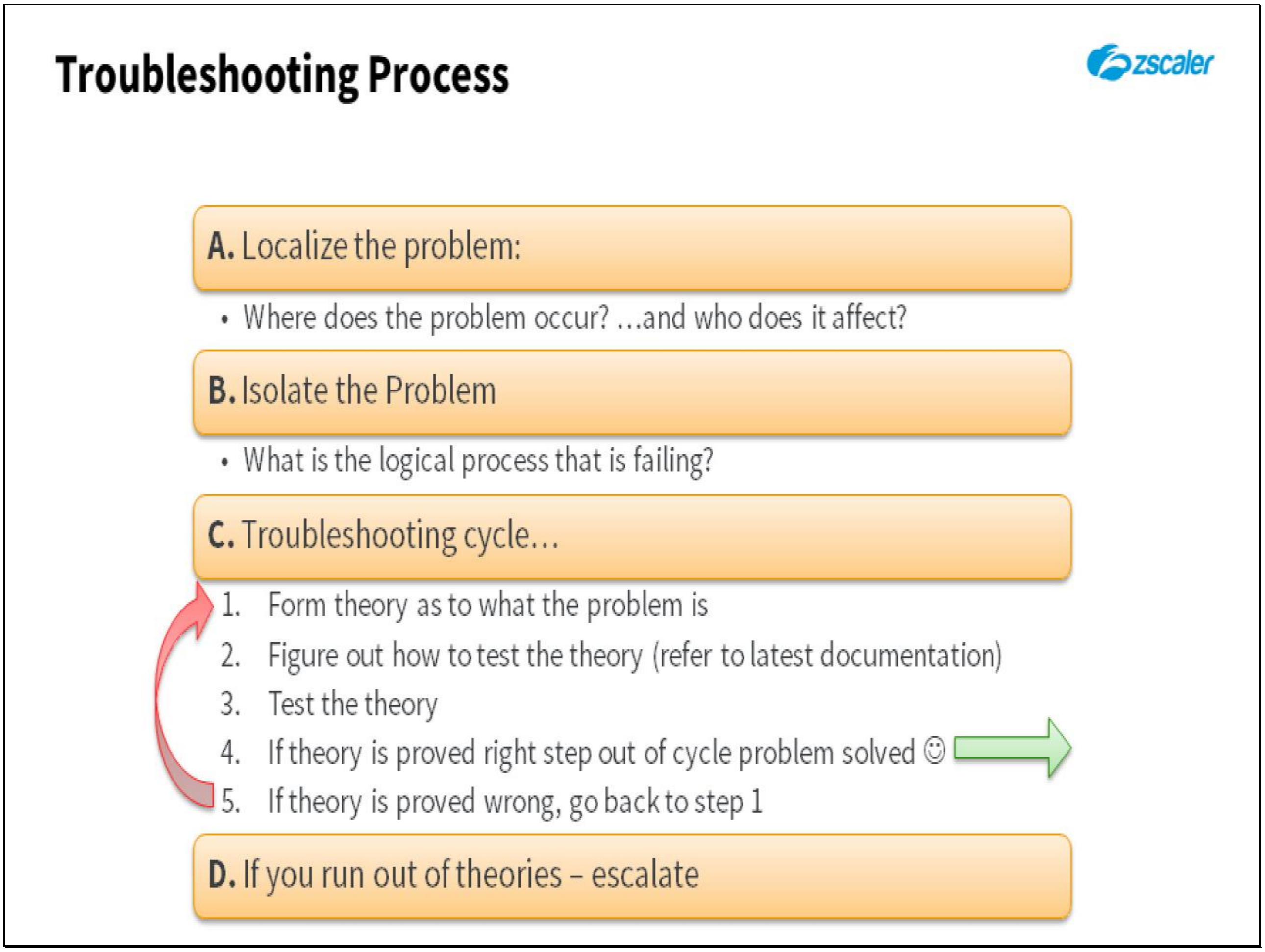
Having come up with a theory, you then need to figure out the best way to test your theory, ...what can you change or re-configure which (according to your theory) should fix the issue.

Then you can go ahead and test your theory, at which point there could be two possible outcomes:

First, your theory proved to be correct, and connectivity has been restored for the end user. This means that you have fixed the problem, or at least a problem, and you can step out of the troubleshooting cycle (for now).

Alternatively, your theory is proved to be incorrect, at which point you need to reverse any configuration changes that you made during your tests, and come up with a new theory.

**Slide 8 - Troubleshooting Process**



# Troubleshooting Process

**A.** Localize the problem:

- Where does the problem occur? …and who does it affect?

**B.** Isolate the Problem

- What is the logical process that is failing?

**C.** Troubleshooting cycle…

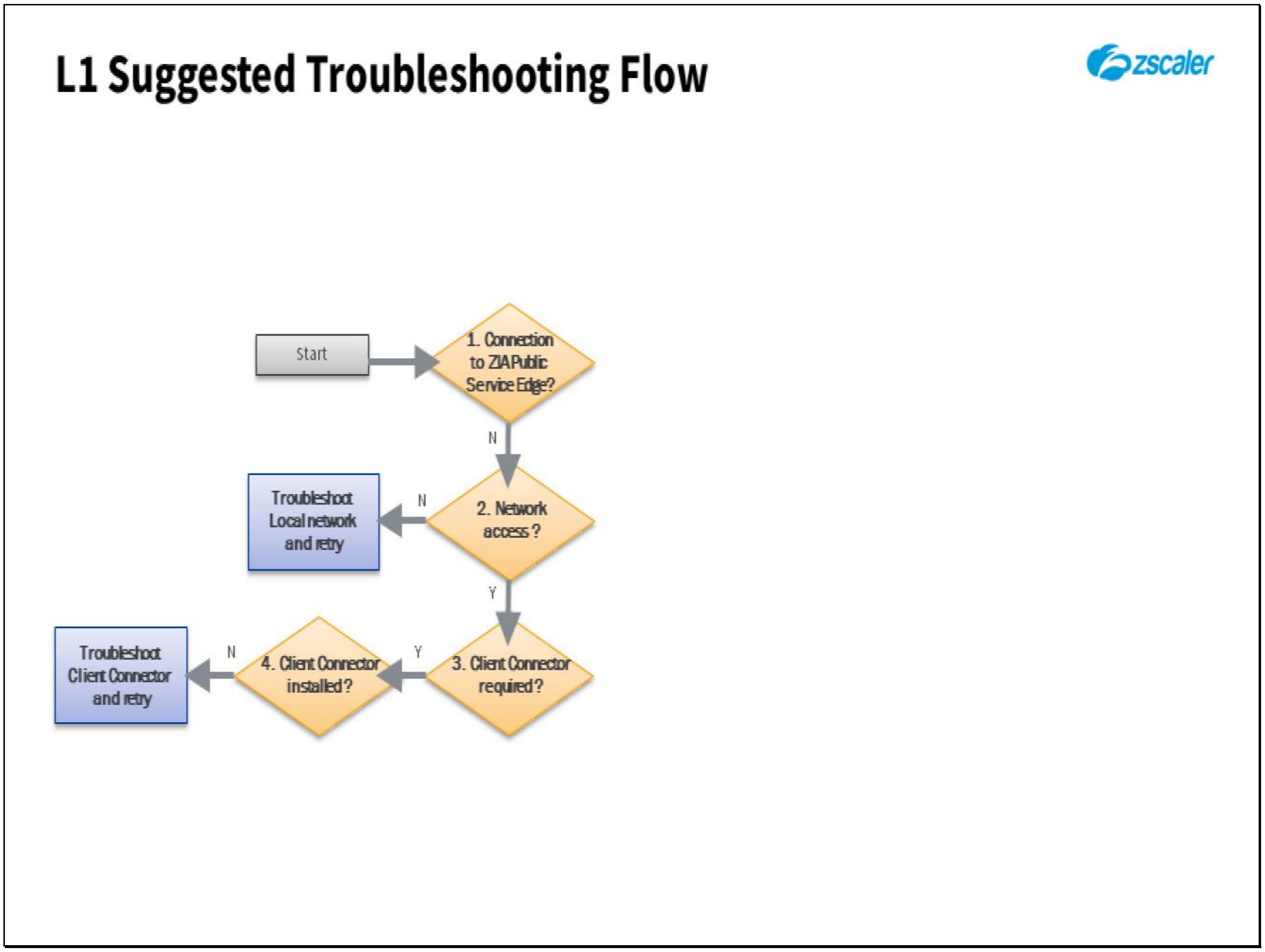
1. Form theory as to what the problem is
2. Figure out how to test the theory (refer to latest documentation)
3. Test the theory
4. If theory is proved right step out of cycle problem solved ☺
5. If theory is proved wrong, go back to step 1

**D.** If you run out of theories – escalate

**Slide notes**

There are only so many theories that any engineer can come up with, and if you run out of theories you will need to consult more experienced colleagues, who may well have seen the problem before, or can at least bring a fresh set of eyes to the problem.

### Slide 9 - L1 Suggested Troubleshooting Flow



## L1 Suggested Troubleshooting Flow

zscaler
Start
1. Connection to ZIA Public Service Edge?
N
2. Network access ?
N
Troubleshoot Local network and retry
Y
3. Client Connector required?
Y
4. Client Connector installed?
N
Troubleshoot Client Connector and retry

### Slide notes

Here is a suggested flow diagram for Level 1 support engineers troubleshooting connectivity issues through Zscaler.

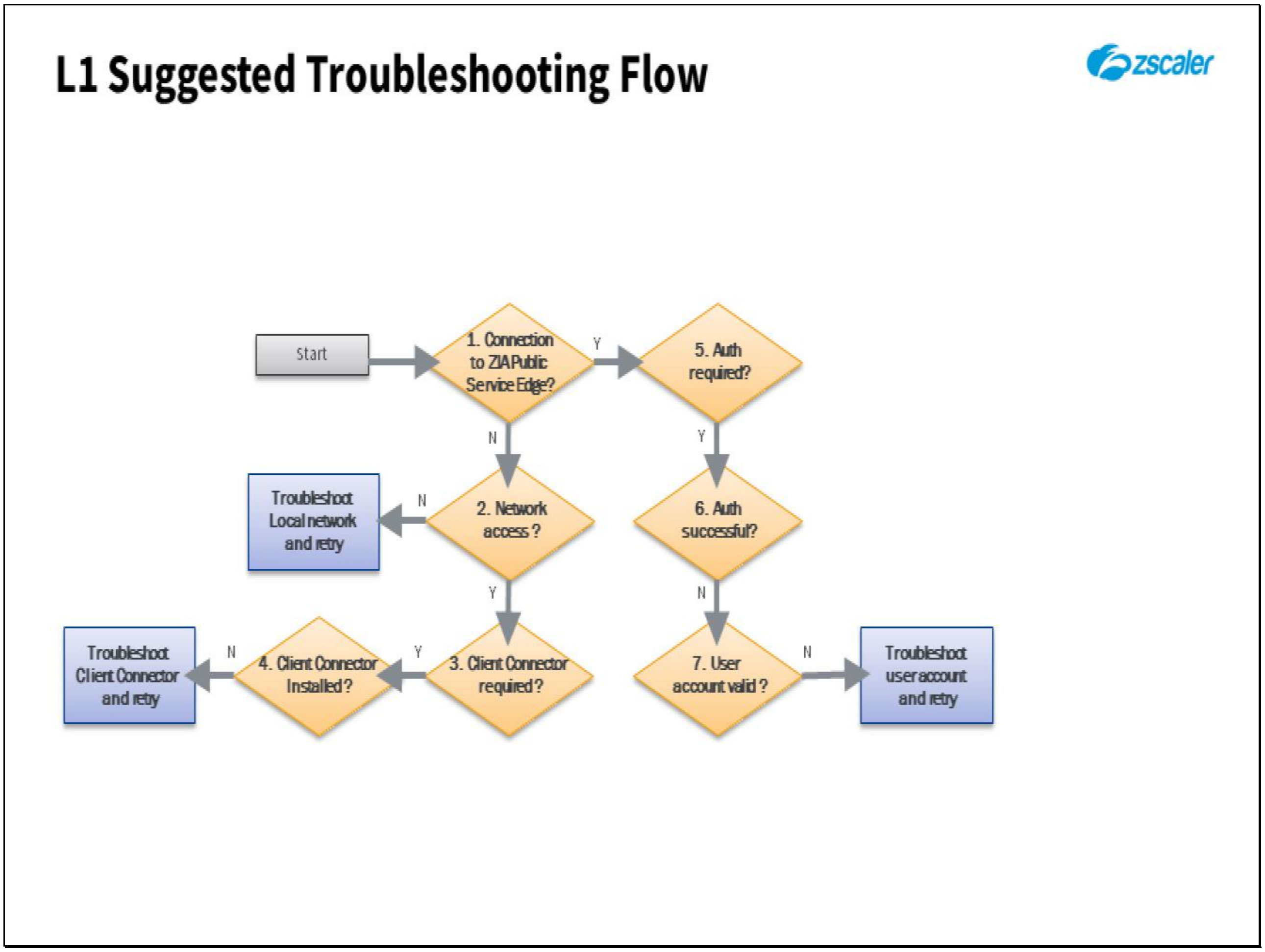
The very first thing to check, is whether or not the end user is actually going through Zscaler. This can be done using the Zscaler Proxy Test Website.

If not, then you may need to troubleshoot some local, or intermediate network connectivity issues.

If the Zscaler Client Connector is required for connectivity…

…you may need to verify that it is installed correctly on the end user's client device.

### Slide 10 - L1 Suggested Troubleshooting Flow



# L1 Suggested Troubleshooting Flow

zscaler

Start

1. Connection to ZIA Public Service Edge?

Y

5. Auth required?

N

Y

Troubleshoot Local network and retry

N

2. Network access ?

6. Auth successful?

Y

N

Troubleshoot Client Connector and retry

N

4. Client Connector Installed?

Y

3. Client Connector required?

7. User account valid ?

N

Troubleshoot user account and retry

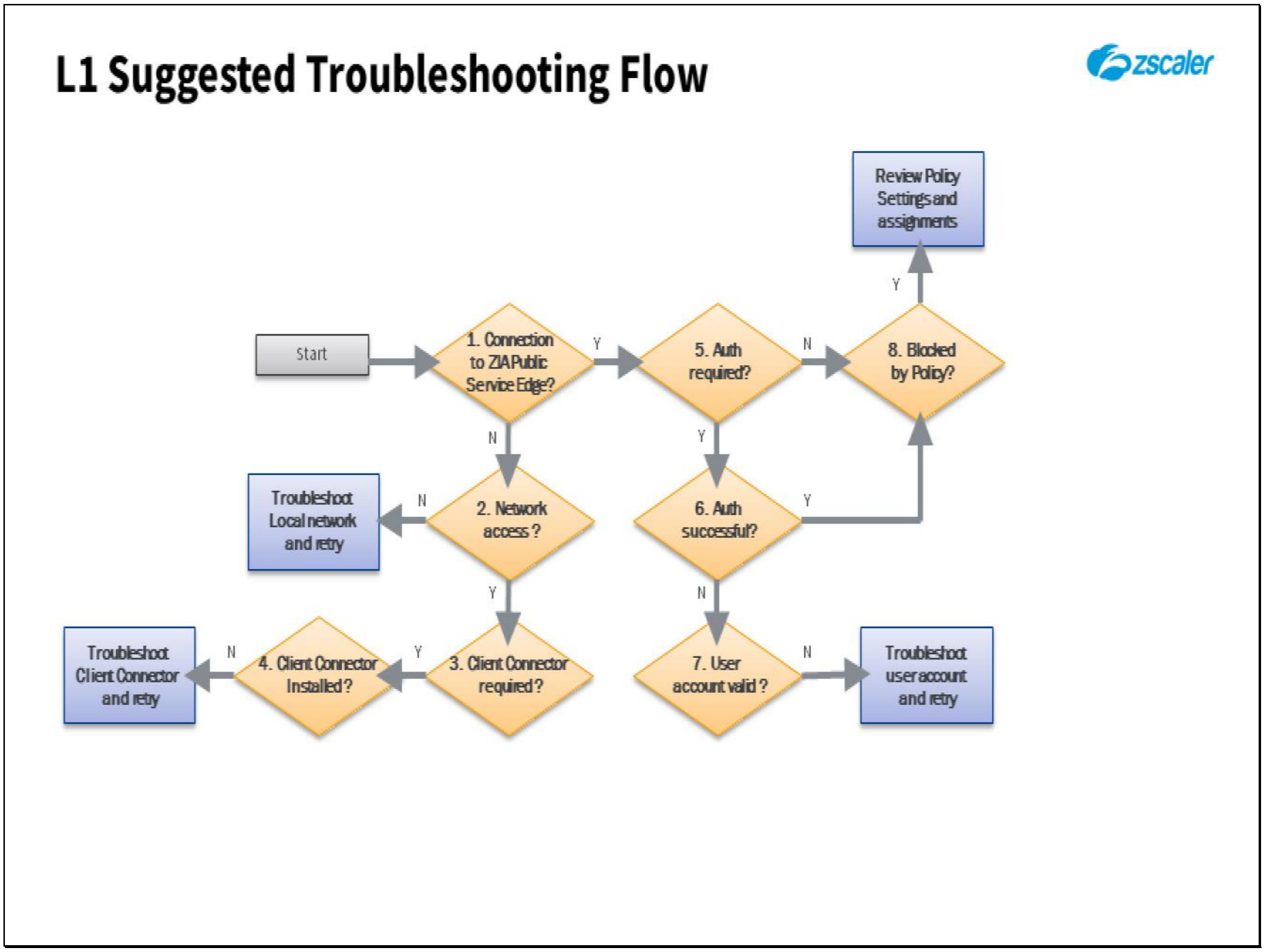
**Slide notes**

If the Proxy Test shows that the end user is connecting through Zscaler, the next process to troubleshoot is end user authentication, if it is required.

Check to see whether the end user can actually authenticate, …

…and if, not check the end user’s account to make sure it is still valid. Bear in mind that there may be other problems that prevent a successful authentication, such as the end user not being able to reach the IdP.

### Slide 11 - L1 Suggested Troubleshooting Flow



# L1 Suggested Troubleshooting Flow

Start

1. Connection to ZIA Public Service Edge?

2. Network access ?

Troubleshoot Local network and retry

3. Client Connector required?

4. Client Connector Installed?

Troubleshoot Client Connector and retry

5. Auth required?

6. Auth successful?

7. User account valid ?

Troubleshoot user account and retry

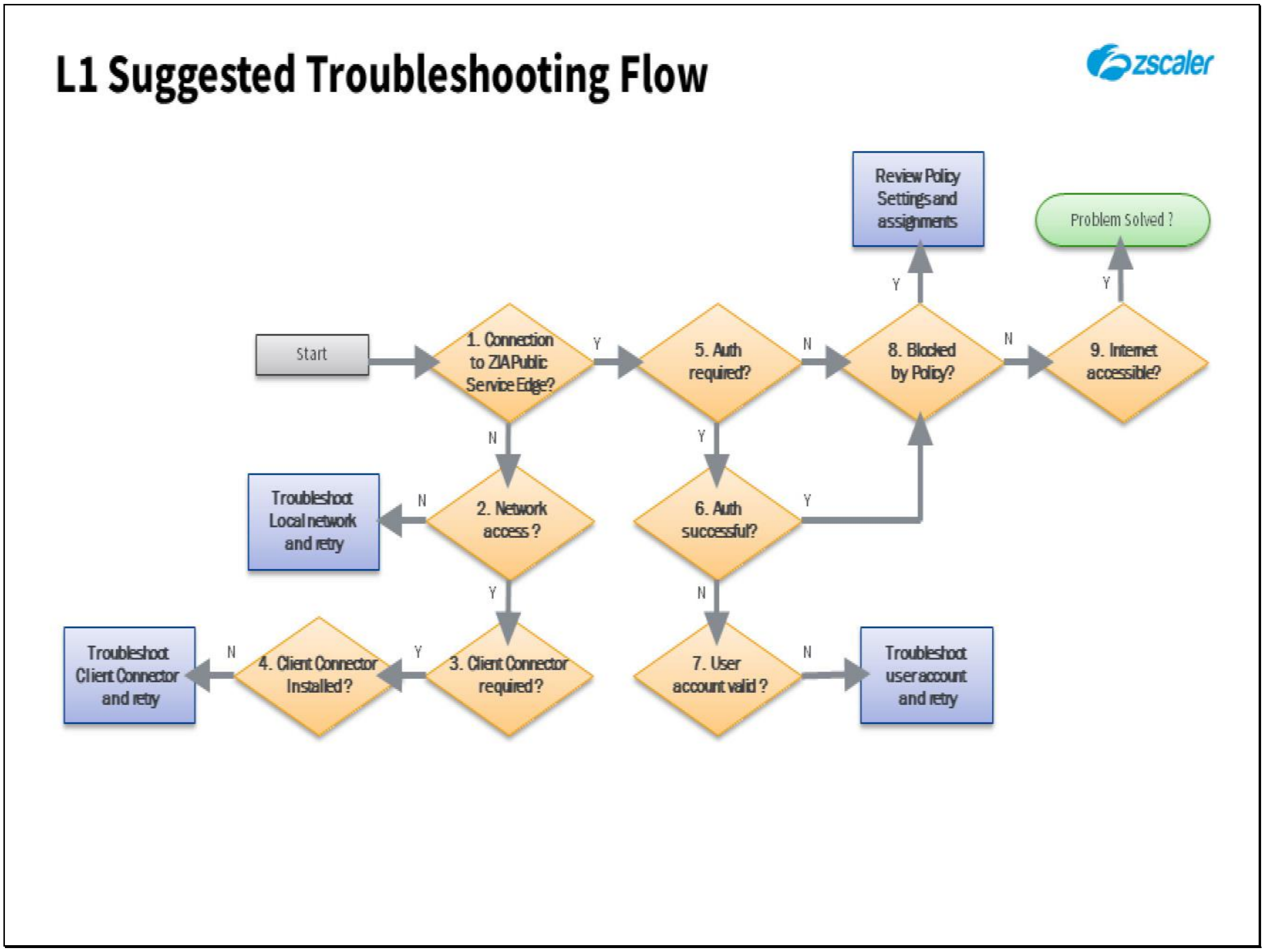
8. Blocked by Policy?

Review Policy Settings and assignments

### Slide notes

If the end user can actually authenticate, or if authentication is not required at all and the user still has problems accessing a site or the Internet in general, check to see whether some Zscaler policy is blocking the user. This may be a legitimate block, if the requested site has been deemed dangerous or inappropriate, or it may be a ‘false positive’ that requires management and re-configuration.

### Slide 12 - L1 Suggested Troubleshooting Flow



L1 Suggested Troubleshooting Flow

Start

1. Connection to ZIA Public Service Edge?

2. Network access ?

3. Client Connector required?

4. Client Connector Installed?

5. Auth required?

6. Auth successful?

7. User account valid ?

8. Blocked by Policy?

9. Internet accessible?

Troubleshoot Local network and retry

Troubleshoot Client Connector and retry

Troubleshoot user account and retry

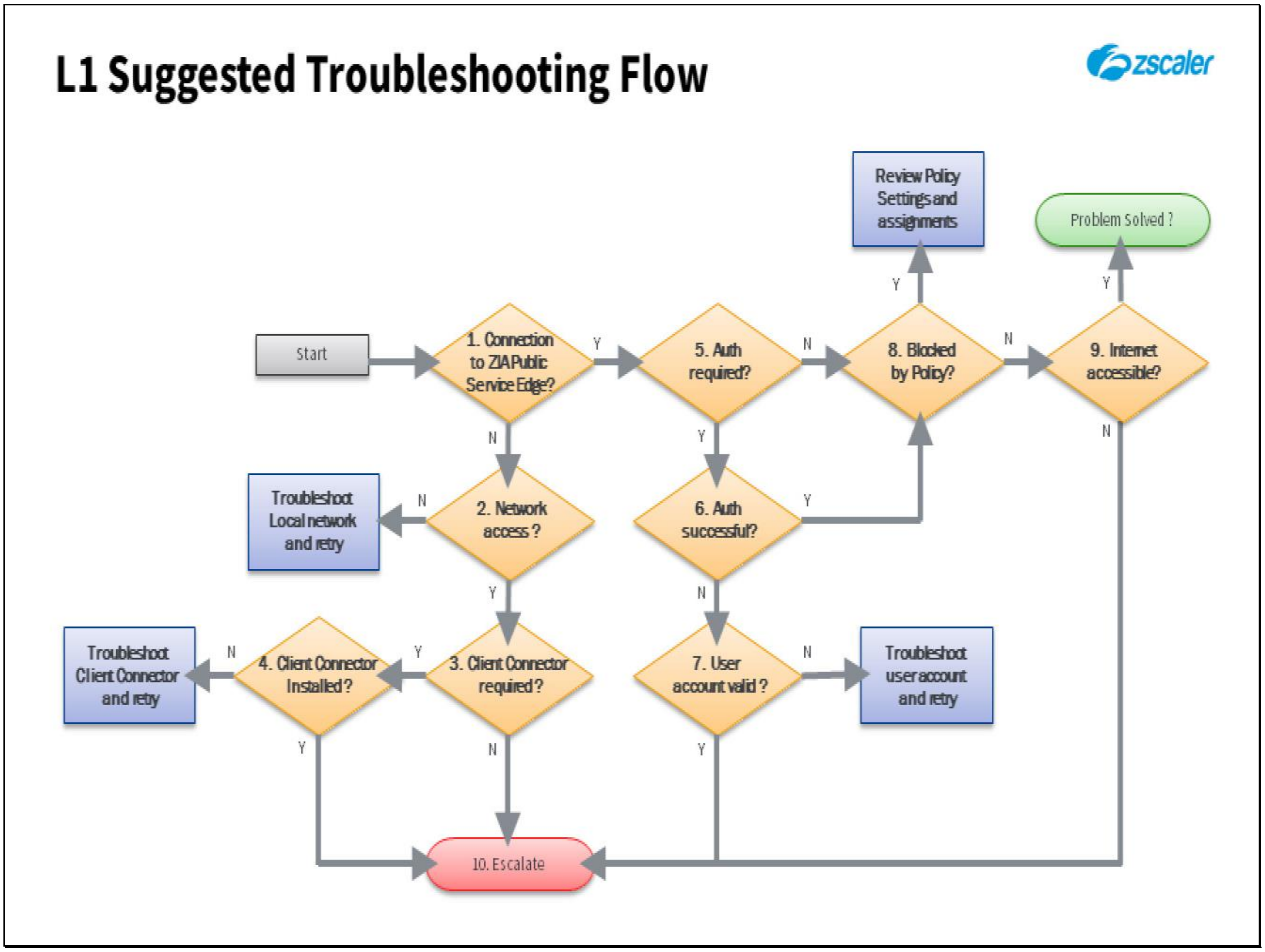
Review Policy Settings and assignments

Problem Solved ?

### Slide notes

Having identified and corrected any problems during this process, re-test connectivity to see whether the end user can now connect to the site, or to The Internet. If so, then the problem may have been solved.

### Slide 13 - L1 Suggested Troubleshooting Flow



# L1 Suggested Troubleshooting Flow

Start

1. Connection to ZIA Public Service Edge?

2. Network access ?

3. Client Connector required?

4. Client Connector Installed?

5. Auth required?

6. Auth successful?

7. User account valid ?

8. Blocked by Policy?

9. Internet accessible?

10. Escalate

Troubleshoot Local network and retry

Troubleshoot Client Connector and retry

Troubleshoot user account and retry

Review Policy Settings and assignments

Problem Solved ?

### Slide notes

If at any point in this flow you run out of ideas, or things to test, you probably need to escalate the issue to a support engineer at the next Level.

### Slide 14 - Information Required to Open a Ticket

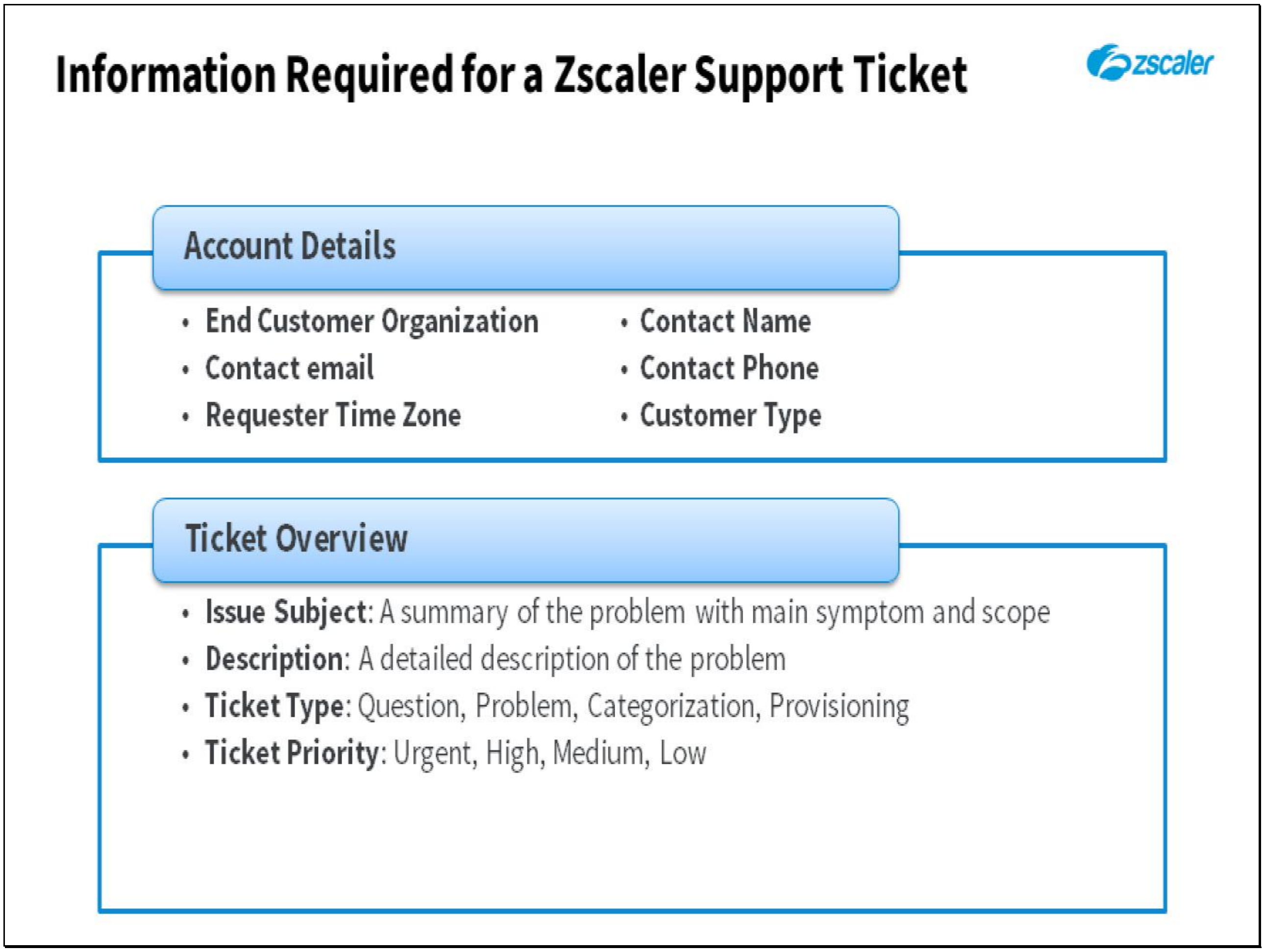
zscaler

Information Required to Open a Ticket

**Slide notes**

In the final section, we will have a look at the information that you require in order to raise a support case to Zscaler.

### Slide 15 - Information Required for a Zscaler Support Ticket



## Information Required for a Zscaler Support Ticket

**Account Details**

- End Customer Organization
- Contact email
- Requester Time Zone
- Contact Name
- Contact Phone
- Customer Type

**Ticket Overview**

- **Issue Subject**: A summary of the problem with main symptom and scope
- **Description**: A detailed description of the problem
- **Ticket Type**: Question, Problem, Categorization, Provisioning
- **Ticket Priority**: Urgent, High, Medium, Low

**Slide notes**

There is a certain minimum of information that is required in order to open a ZIA support ticket with Zscaler, so it is a good idea to start collecting this data early in the troubleshooting process.

We will of course, need to know who the customer is that is raising the ticket, and the full details of the contact at the customer or partner responsible for managing the ticket, including their time zone. Also, the type of customer, whether a current ZIA customer, or whether the customer is a prospect, or working on a Proof of Concept (POC).

‘Ticket Overview’ information that will be required, include:

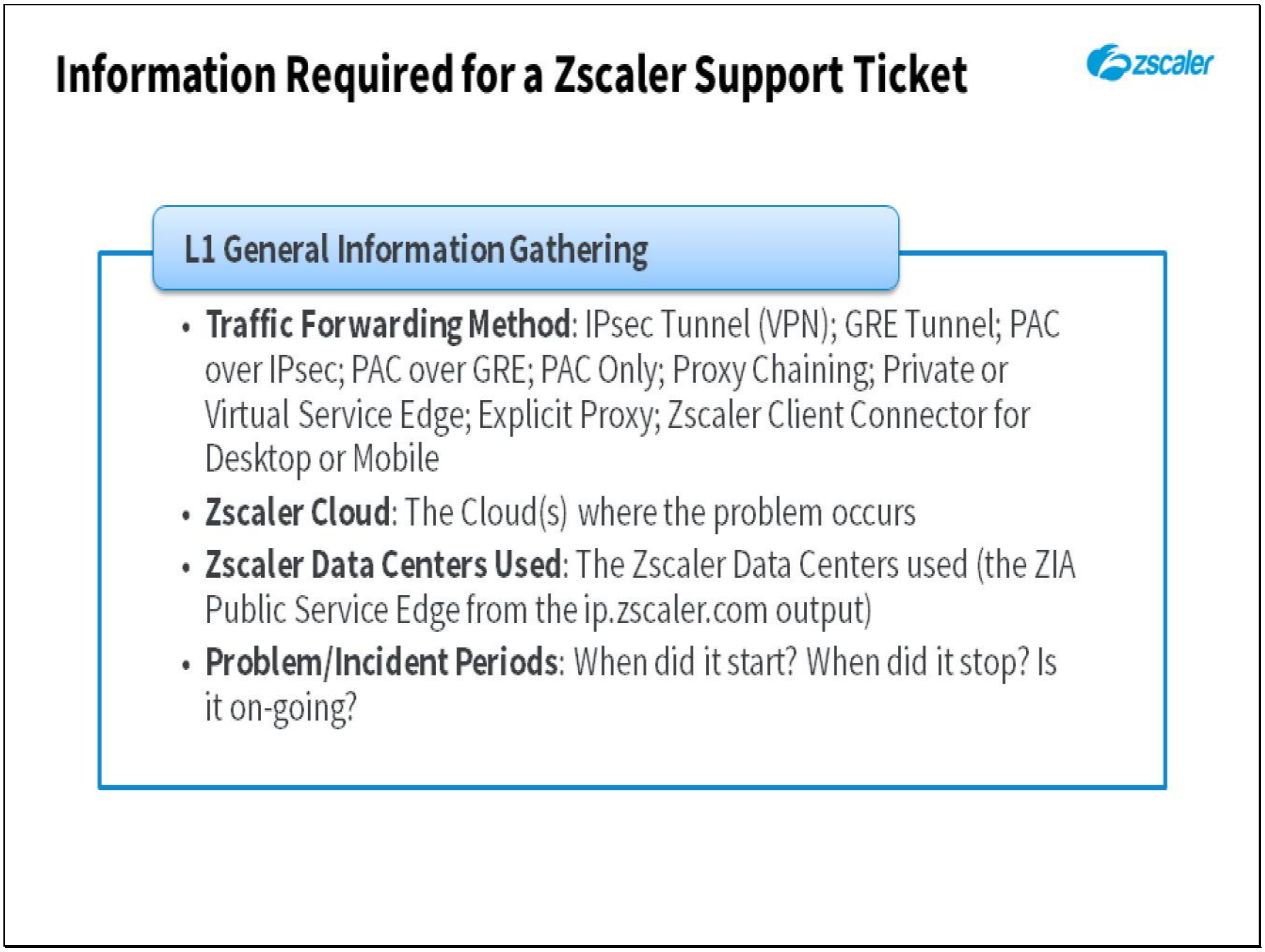
**Issue Subject**: A summary of the problem with main symptom and scope. This is a free text field, and should be as concise as possible, but at the same time give a complete indication of the nature of the problem.

**Description**: A detailed description of the problem. This is a free text field that allows you to fully explain the nature of the problem, the symptoms, where and when the problem occurs, what process you suspect is at fault, and what steps you have taken to identify the problem, or corrective actions that you have taken with no success.

**Ticket Type**: Select from the available types; 'Problem', 'Question', 'Categorization', or 'Provisioning'. See the Support Overview module for what each of these types denote.

**Ticket Priority**: Select from the available priorities; 'Urgent', 'High', 'Medium', or 'Low'. See the Support Overview module for what each of these priorities denote.

**Slide 16 - Information Required for a Zscaler Support Ticket**



## Information Required for a Zscaler Support Ticket

zscaler

### L1 General Information Gathering

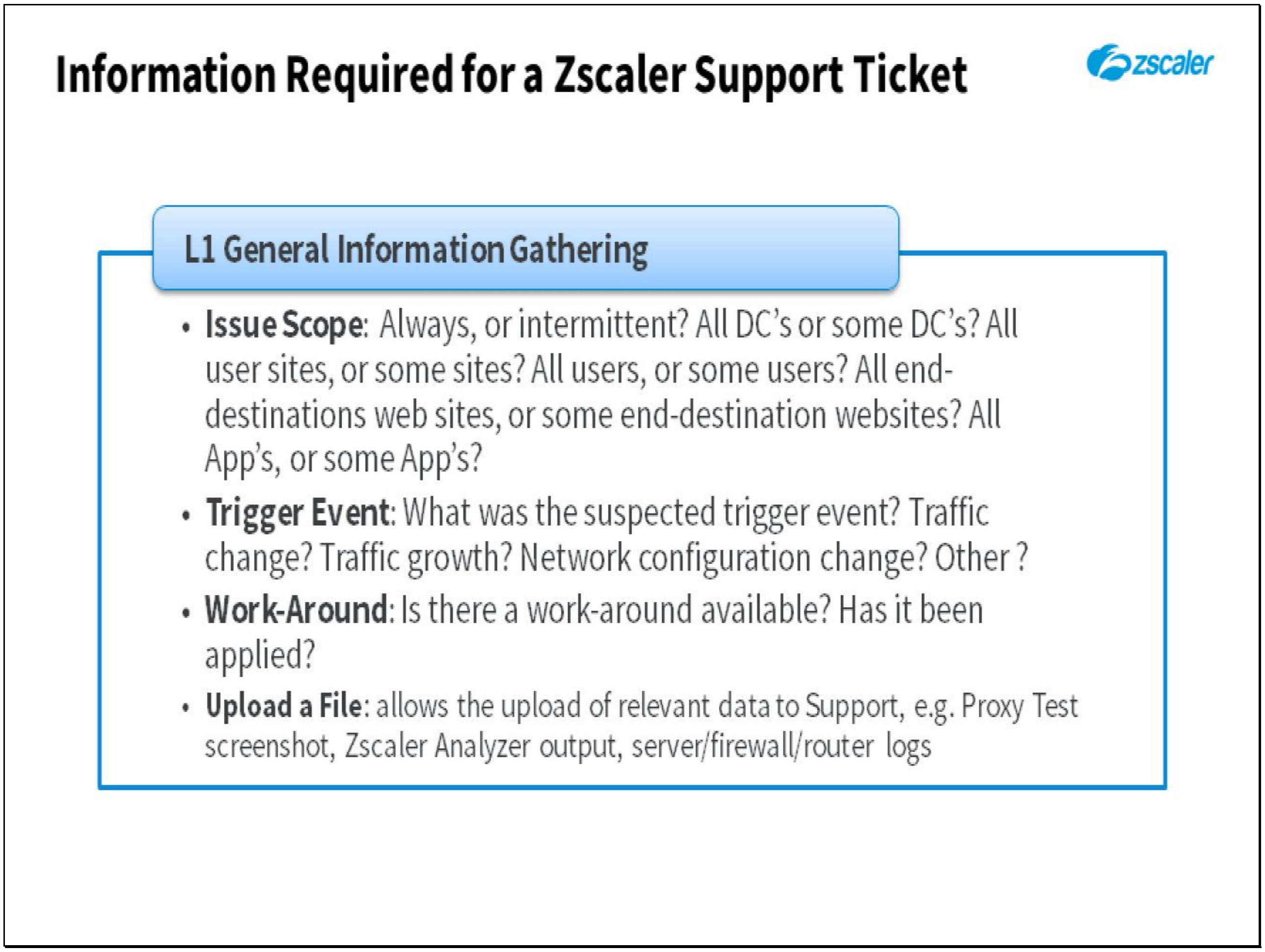
- **Traffic Forwarding Method**: IPsec Tunnel (VPN); GRE Tunnel; PAC over IPsec; PAC over GRE; PAC Only; Proxy Chaining; Private or Virtual Service Edge; Explicit Proxy; Zscaler Client Connector for Desktop or Mobile
- **Zscaler Cloud**: The Cloud(s) where the problem occurs
- **Zscaler Data Centers Used**: The Zscaler Data Centers used (the ZIA Public Service Edge from the ip.zscaler.com output)
- **Problem/Incident Periods**: When did it start? When did it stop? Is it on-going?

**Slide notes**

We always need to know the traffic forwarding method in use for the end user, whether traffic forwarding is transparent to them (using some form of tunnel), or whether there is some form of explicit configuration (a PAC file applied, or the Zscaler Client Connector). We will need to know which of the Zscaler Clouds the customer is provisioned on, and the data centers used by them.

This information can be found from the host names of the ZIA Public Service Edges that the end users connect through, from the data provided at the Proxy Test Website page. We also need to know when the problem started, whether it is an on-going issue, or if it has stopped, when did it stop.

**Slide 17 - Information Required for a Zscaler Support Ticket**



# Information Required for a Zscaler Support Ticket

## L1 General Information Gathering

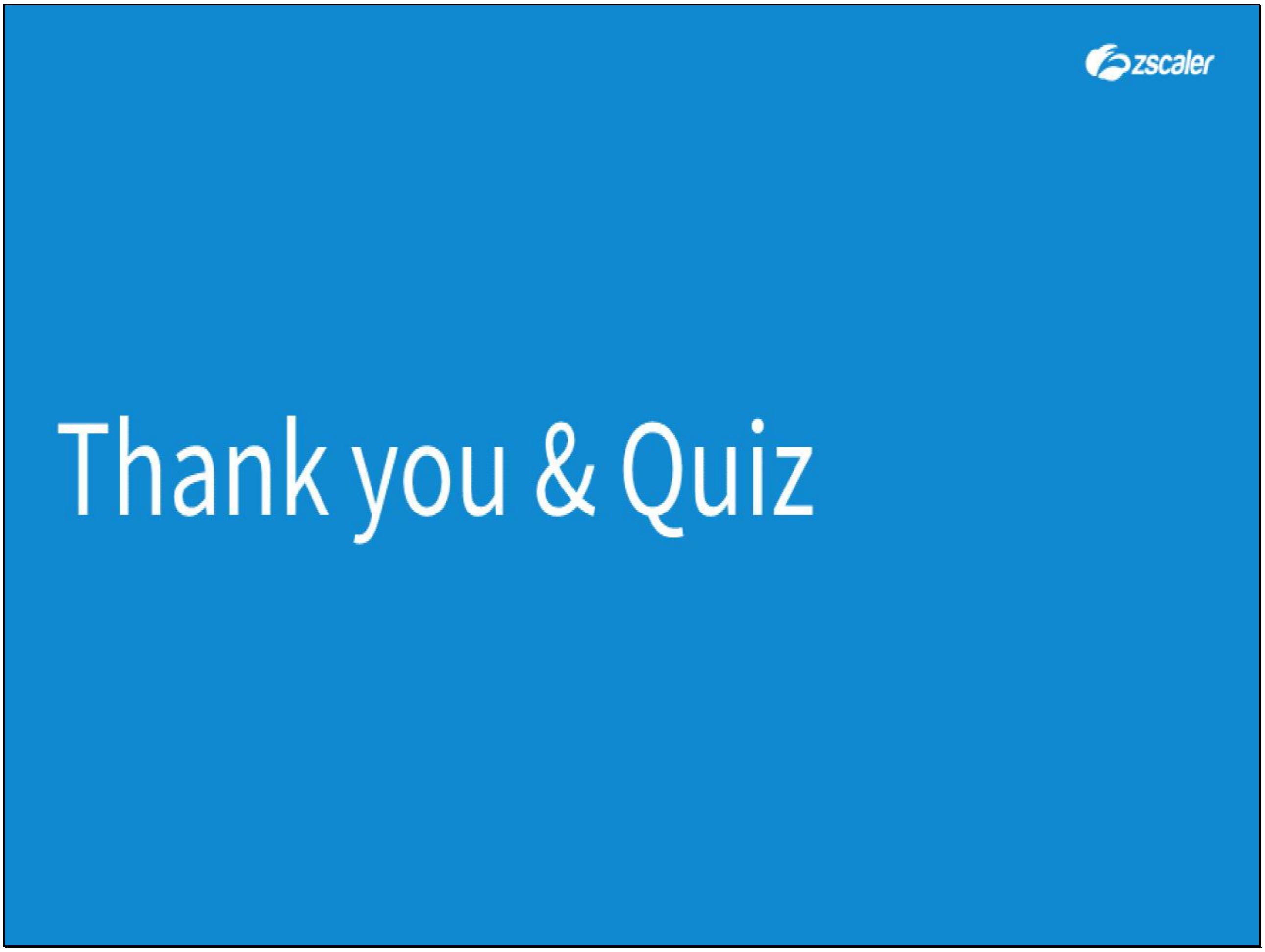
- **Issue Scope**: Always, or intermittent? All DC's or some DC's? All user sites, or some sites? All users, or some users? All end-destinations web sites, or some end-destination websites? All App's, or some App's?
- **Trigger Event**: What was the suspected trigger event? Traffic change? Traffic growth? Network configuration change? Other ?
- **Work-Around**: Is there a work-around available? Has it been applied?
- **Upload a File**: allows the upload of relevant data to Support, e.g. Proxy Test screenshot, Zscaler Analyzer output, server/firewall/router logs

**Slide notes**

We need to understand the scope of the issue, whether it is permanent or intermittent, whether it applies to all sites, users, data centers, destinations, or apps. Useful information would include what you think to be the trigger criteria for the issue, whether there has been recent a change in conditions or configurations that might have a bearing. We need to know if there is a work-around in place, and if so, what that is.

Finally, you have the ability to upload any data that may help us to troubleshoot the problem, such as: screenshots of the Zscaler Proxy Test Website data; the output from the Zscaler Cloud Performance Test, or Analyzer tool; Log files from any related systems, for example - firewall systems, routers, Zscaler Client Connector, or servers.

### Slide 18 - Thank you & Quiz



Thank you & Quiz

### Slide notes

Thank you for following this training module on the process of troubleshooting Zscaler Internet Access. We hope this module has been useful to you and thank you for your time.

What follows is a short quiz to test your knowledge of the material presented during this module. You may retake the quiz as many times as necessary in order to pass.