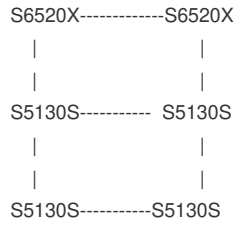


知 某局点断网原因分析

DLDP STP 李臻昊 2022-11-30 发表

组网及说明



告警信息

%Nov 1 09:41:10:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:12:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:14:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:16:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:18:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:20:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:22:381 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:24:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:26:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:28:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:30:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:32:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:34:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:36:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:38:327 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/5/DLDP_AUTHENTICATION_FAILED: The DLDP packet failed the authentication because of unmatched INTERVAL field. %Nov 1 09:41:40:247 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/6/DLDP_NEIGHBOR_CONFIRMED: A neighbor was confirmed on interface Ten-GigabitEthernet1/0/49. The neighbor's system MAC is bcd0-eb8d-0404, and the port index is 1. %Nov 1 09:41:40:248 2022 t1-FAB-TFTL1F-S5130S-0.164 DLDP/6/DLDP_LINK_BIDIRECTIONAL: DLDP detected a bidirectional link on interface Ten-GigabitEthernet1/0/49. %Nov 1 09:41:40:307 2022 t1-FAB-TFTL1F-S5130S-0.164 IFNET/5/LINK_UPDOWN: Line protocol state on the interface Ten-GigabitEthernet1/0/49 changed to up. %Nov 1 09:41:41:835 2022 t1-FAB-TFTL1F-S5130S-0.164 STP/4/STP_DISPUTE: VLAN 42's port Ten-GigabitEthernet1/0/50 received an inferior BPDU from a designated port which is in forwarding or learning state. The designated bridge ID contained in the BPDU is 32768.8c94-6ad9-5690, and the designated port ID contained in the BPDU is 128.49. %Nov 1 09:41:41:953 2022 t1-FAB-TFTL1F-S5130S-0.164 STP/4/STP_DISPUTE_RESTORATION: The block action by dispute guard was undone on VLAN 42's port Ten-GigabitEthernet1/0/50.

问题描述

某局点反馈，stp收敛慢，时间长达3分钟，期间网络出现中断，端口角色一直变化，客户怀疑是stp的问题

过程分析

- 1、首先和现场工程师确认，有没有做业务上的变更，现场工程师说并没有变更
- 2、查看历史报错信息，有dispute的报错信息，但是dispute报文只有一个，却有很多DLDP信息报错，报错信息提示DLDP验证失败，查看DLDP的相关配置，发现DLDP检测链路单通的时候使用的是默认的方式，也就是直接down掉相关链路
- 3、从时间来看，DLDP报错时间和断网时间高度吻合，又和现场工程师确认，这个时间段有发生什么其他异常的情况，经确认，在这个时间段内客户有尝试更改DLDP参数，从更改相关参数后，DLDP两端参数不一致，导致DLDP认证失败，DLDP认证失败就会认为链路存在单通，由于采用的是默认的处理方式，链路就会断开，但是链路断开有先后性，一个端口先断，一个链路后断，极短时间内存在实际意义上的单通，这也就是为什么会只有一个dispute报文的原因

解决方法

不涉及，客户自己操作断网，将相关DLDP配置回退后解决

