Troubleshoot Webex Domain Verification Failing Due to DNS Propagation and Backend Processing Issues

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Issue

Domain verification was failing in Webex Control Hub despite the correct TXT record being present in DNS. The domain "sharqiah.gov.sa" remained in pending status and could not be verified even after multiple attempts to remove and re-add the domain. The verification process consistently failed with this error logged in the backend:

```
DomainVerificationResourceHandler.verifyDomainTXTRecord: CI TXT Record is missing for domain: sharqiah.
```

This error occurred despite the DNS TXT record being properly configured and externally accessible. The issue impacted approximately 1000 users and was escalated to Severity 1 due to business impact. Multiple troubleshooting attempts including DNS verification, domain removal/re-addition, and live troubleshooting sessions were performed without initial success.

Environment

- Webex Control Hub - Common Identity
- Organization ID: 6f5ce2bc-4b89-4c6a-a123-1c4237424aa6
- Domain: sharqiah.gov.sa
- DNS TXT record properly configured with verification token
- External DNS publication confirmed
- TTL setting: 21600 seconds (6 hours)

Resolution

The domain verification issue was resolved through a combination of DNS propagation time and backend

processing. The resolution occurred during a live troubleshooting session where these steps were performed:

Step 1: Verify DNS TXT Record Configuration

Confirmed the DNS TXT record was properly configured and externally accessible using the dig command:

```
dig sharqiah.gov.sa IN TXT
```

The output showed the correct verification token was present:

```
sharqiah.gov.sa. 21600 IN TXT "cisco-ci-domain-verification=24ffa8cf42e09975486b4734140ccd90dc42e8847d8
sharqiah.gov.sa. 21600 IN TXT "apple-domain-verification=hWgwGGgVVfamYhYd"
sharqiah.gov.sa. 21600 IN TXT "v=spf1 a mx -all"
```

Step 2: Attempt Domain Verification

During the live session, attempted to verify the domain through Webex Control Hub, which initially failed with the same error.

Step 3: Collect HAR Logs

While collecting HAR logs for further analysis, the domain verification suddenly succeeded without any configuration changes.

Step 4: Verify Resolution

Confirmed the domain status changed from "pending" to "verified" in Webex Control Hub, resolving the issue completely.

The issue resolved itself during the troubleshooting process, likely due to DNS propagation delays and backend processing timing. No backend changes were made by the engineering team during the resolution timeframe.

Cause

The root cause was attributed to DNS propagation delays and backend processing timing issues. Despite the DNS TXT record being correctly configured for over 24 hours, the Webex backend systems experienced delays in recognizing the verification token. The issue was likely related to DNS caching and propagation

across different DNS servers used by the Webex verification system. The 6-hour TTL setting on the DNS record can have contributed to extended propagation times across the global DNS infrastructure.

Related Content

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