

ForCES Applicability Statement

draft-crouch-forces-applicability-00.txt

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ForCES Applicability Statement

◆ What is an Applicability Statement?

- ▶ A short draft stating what problems it's reasonable to apply a protocol to.
- ▶ And perhaps which it isn't.

◆ Why does ForCES need one?

- ▶ Management of expectations.
- ▶ To ensure we're all on the same page so we can do something useful.
- ▶ To ensure that others (not here) are on the same page.
- ▶ To try to prevent people doing dumb things.

ForCES Applicability Statement

What's the process?

- ◆ **First, the group agrees that it's useful in principle.**
 - ▶ Hopefully today.
- ◆ **Second, the group agrees with the content.**
 - ▶ Hopefully today. Then we resubmit it as a WG document.
- ◆ **The document continues to evolve to track the WG's consensus about how the ForCES protocol should be used.**
 - ▶ But we want to be careful not to try and micromanage usage - the document should remain short and high-level.
- ◆ **Finally, around the time the ForCES protocol is standardized, the Applicability Statement should become an Informational RFC.**

What's in the Applicability Statement?

- ◆ **Not much.**

What's in the Applicability Statement?

Section Headings:

- ◆ **1. Overview**
- ◆ **2. Terminology**
- ◆ **3. Applicability to IP Networks**
 - ▶ 3.1. Applicable Services
 - ▶ 3.2. CE-FE Link Capacity
 - ▶ 3.3. CE/FE Locality
- ◆ **4. Limitations and Out-of-Scope Items**
 - ▶ 4.1. Out of Scope Services
 - ▶ 4.2. Localities
- ◆ **5. Security Considerations**

Applicable Services

3.1. Applicable Services

- ◆ **Discovery:**
 - ▶ no, ForCES assumes it's been done
- ◆ **Capability Information Exchange:**
 - ▶ yes, both initial and dynamic.
- ◆ **Topology Information Exchange:**
 - ▶ no, but may be used to convey results.
- ◆ **Port Configuration:**
 - ▶ yes. e.g., set attributes such as IP addresses.
- ◆ **Routing Exchange:**
 - ▶ yes. e.g., send routes to FEs, misses to CEs.
- ◆ ...

Applicable Services (cont)

- ◆ **QoS Exchange:**

- ▶ yes. FE may express capabilities. CE may configure the use of FE's capabilities.

- ◆ **Security Exchange:**

- ▶ yes. e.g., setup of IPsec tunnel from FE.

- ◆ **Filtering Exchange and Firewalls:**

- ▶ yes. e.g. FE expresses capabilities, CE configures filters in FE.

- ◆ **Encapsulation, Tunneling Exchange:**

- ▶ yes. e.g. FE expresses capabilities, CE configures tunnels in FE.

- ◆ **NAT and Application-level Gateways:**

- ▶ yes for NAT. Not a design goal for app-level gateways, but may be applicable for some.

- ◆ **Measurement and Accounting:**

- ▶ yes, but note overlap with SNMP.

CE/FE Locality

- ◆ **Summary:** This section states what should be blindingly obvious.
- ◆ **Use ForCES in:**
 - ▶ Very Close Localities
 - ▶ Close Localities.
- ◆ **Very Close Localities:**
 - ▶ Same box, rack, or similar.
 - ▶ Basically we expect the CE-FE link to have high availability.
- ◆ **Close Localities:**
 - ▶ Only a very small number of IP hops between CE and FE.
 - ▶ Those IP hops shouldn't be dynamically routed.
 - ▶ Fate sharing.

CE/FE Locality: Close Localities

- ◆ **Example scenario:**

- ▶ FE is customer premises equipment.
- ▶ CE is at ISP facility.
- ▶ A single IP link separates CE and FE.
- ▶ FE is not used to forward traffic between LANs at the customer premises.

- ◆ **If CE-FE link fails, the FE wouldn't have anything useful it could do anyway.**

- ◆ **Not in scope:**

- ▶ As above, but CE-FE link is low bandwidth relative to control/monitoring traffic.

- ◆ **Not in scope:**

- ▶ As above, but FE also forwards traffic between LANs. If CE-FE link fails, internal forwarding at customer premises site fails.

Out of Scope Services

- ◆ **Explicitly not addressed by ForCES:**
 - ▶ Label Switching
 - ▶ Multimedia Gateway Control (MEGACO).

Summary

- ◆ **This document basically states the obvious.**
 - ▶ But what's obvious to us won't necessarily be obvious to people not involved in the ForCES group.

- ◆ **What next:**
 - ▶ Should this be a working group document?
 - ▶ Is the current content an acceptable starting point?

