Multipoint LDP

Extensions to the Label Distribution Protocol (LDP) for the setup of point-to-multipoint (P2MP) and multipoint-to-multipoint (MP2MP) Label Switched Paths (LSPs) in MPLS networks. These extensions are also referred to as multipoint LDP.

# Specifications

The following specifications are included in the scope of work. The inclusions and exclusions sections provide more detailed lists of specific features that will be included or excluded from the project scope.

**RFC5036**

LDP Specification

**RFC5561**

LDP Capabilities

**RFC6388**

Label Distribution Protocol Extensions for Point-to-Multipoint and Multipoint-to-Multipoint Label Switched Paths

# Inclusions

The following items will be included in the scope of work:

* All portions of RFC6388
* All portions of RFC5036 (some exclusions)
* Required portions of RFC5561

# Exclusions

The following items will not be included in the scope of work:

* Authenticity and Integrity of LDP Messages

# Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| Who | Type | What | When |
| Déjà vu Security | Deliverable | Scope document |  |
| Huawei | Deliverable | Approve scope document |  |
| Huawei | Deliverable | Protocol captures |  |
| Huawei | Deliverable | Test environment |  |
| Déjà vu Security | Work | Verify test environment and protocol captures | 1 day |
| Déjà vu Security | Deliverable | Schedule work |  |
| Déjà vu Security | Work | Build | 2 weeks |
| Déjà vu Security | Work | Test | 1 week |
| Déjà vu Security | Deliverable | Pit, user guide |  |
| Huawei | Deliverable | Accept deliverable | 1 week |

## Hours Breakdown

|  |  |
| --- | --- |
| Work Item | Hours |
| Verify test environment and protocol captures | 1 day |
| Build Pit | 10 days |
| Test Pit | 5 days |
| Acceptance Testing | 2 days |
| TOTAL HOURS | 18 days |

# Deliverables

The following sections provide a detailed description of each major deliverable.

## Protocol Captures (Huawei)

Huawei will provide protocol captures in the PCAP format suitable for loading into Wireshark. The protocol captures must include examples of each protocol feature to be fuzzed. This includes all items in the inclusions section of this document. Multiple captures can be provided showing different features.

The protocol captures must be provided prior to work starting.

## Test Environment (Huawei)

Huawei will provide a work test environment for validation of the fuzzing definition. If the protocol is supported, Huawei will provide a configuration for the Deja vu Security's lab containing two Huawei AR series routers.

This environment must be provided prior to work starting.

## Pit, User guide (Déjà vu Security)

Work delivery will be in the form of a ZIP archive containing the following:

* Pit files
  + XML file(s)
  + Configuration file(s)
* Custom extensions
  + Source code
  + Binaries (when applicable)
* PDF User guide document
  + Lists RFCs
  + Inclusions/exclusions
  + Example configuration/usage based on test environment provided
  + Descriptions of all parameters
  + Descriptions of all pits (when more than one is delivered)
  + Description of any custom extensions