Performing No-frills File Transfers with Trivial FTP (TFTP)

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Agenda

- Why do we need TFTP?
- TFTP in action with packet analysis
- Securing TFTP
- Comparing TFTP with FTP

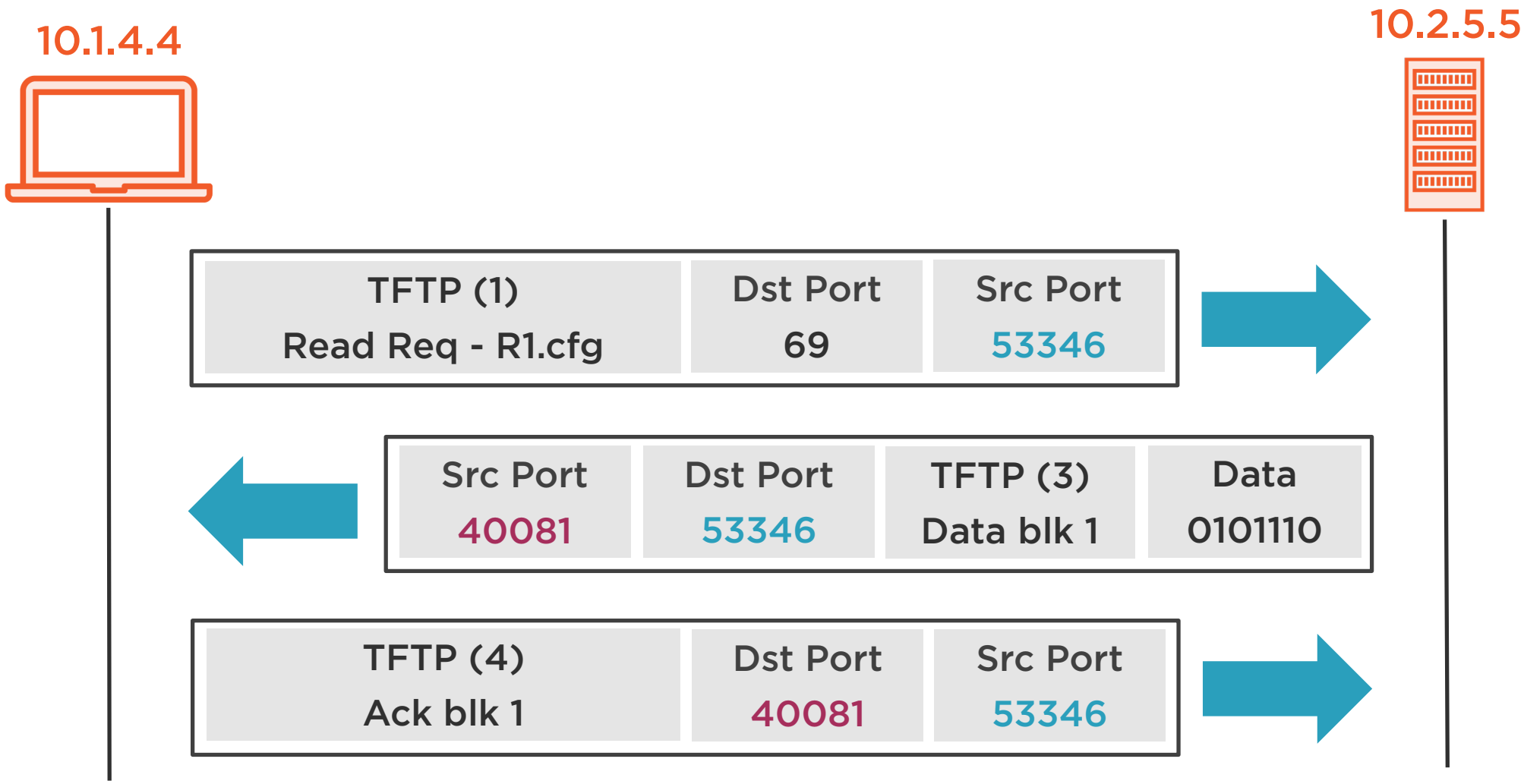
Intention of TFTP

Simple and easy to implement

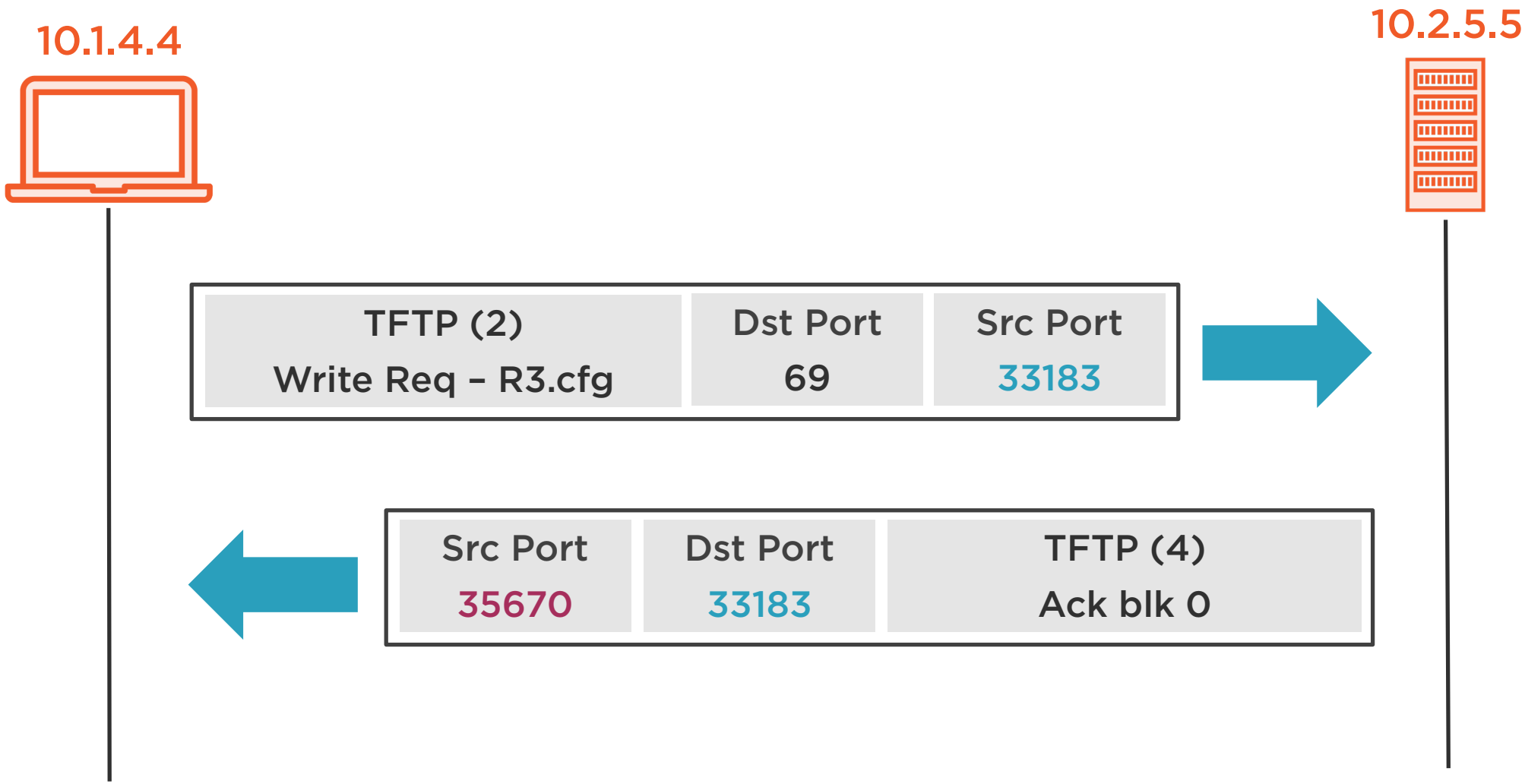
Read and write files

Implemented on UDP

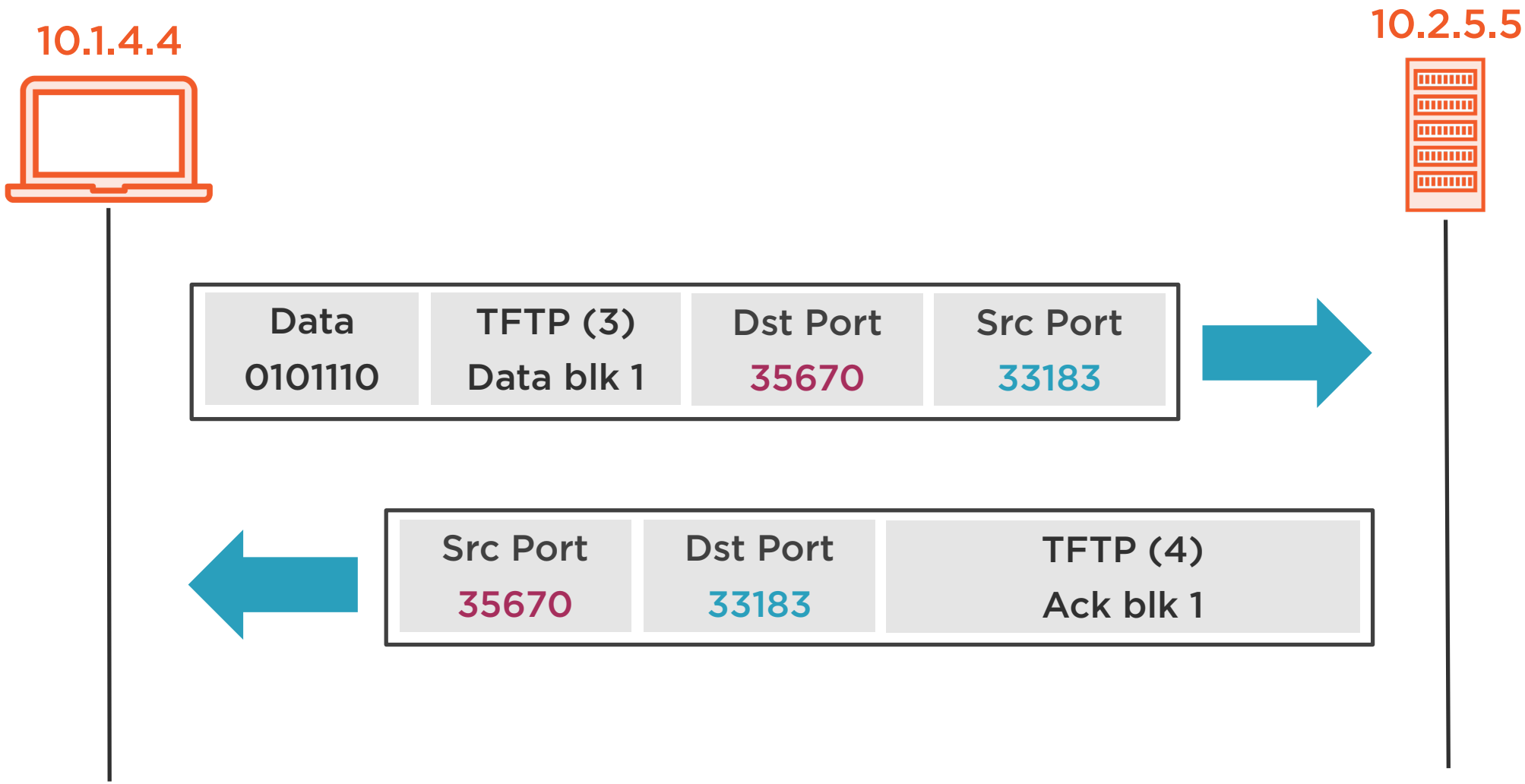
Downloading Files with TFTP



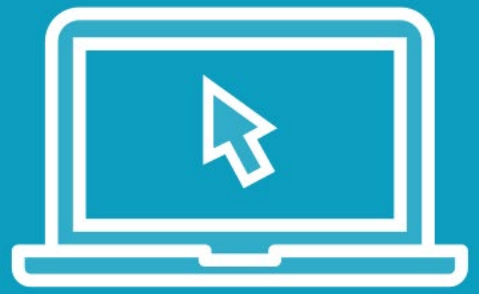
Upload Setup with TFTP



Uploading Files with TFTP

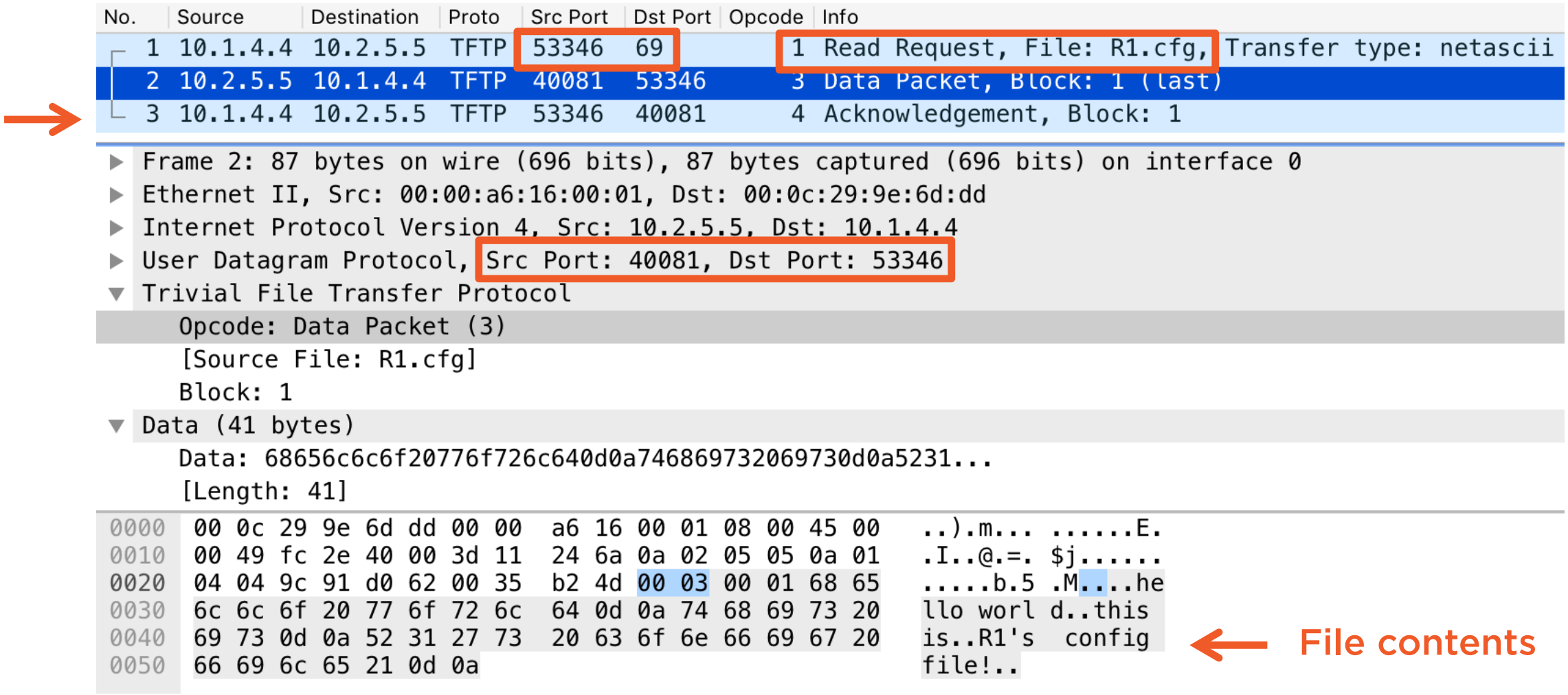


Demo

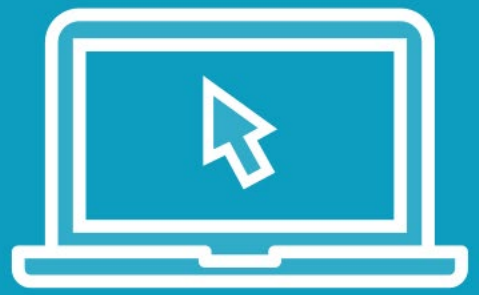


Downloading files with TFTP

TFTP Download Analysis

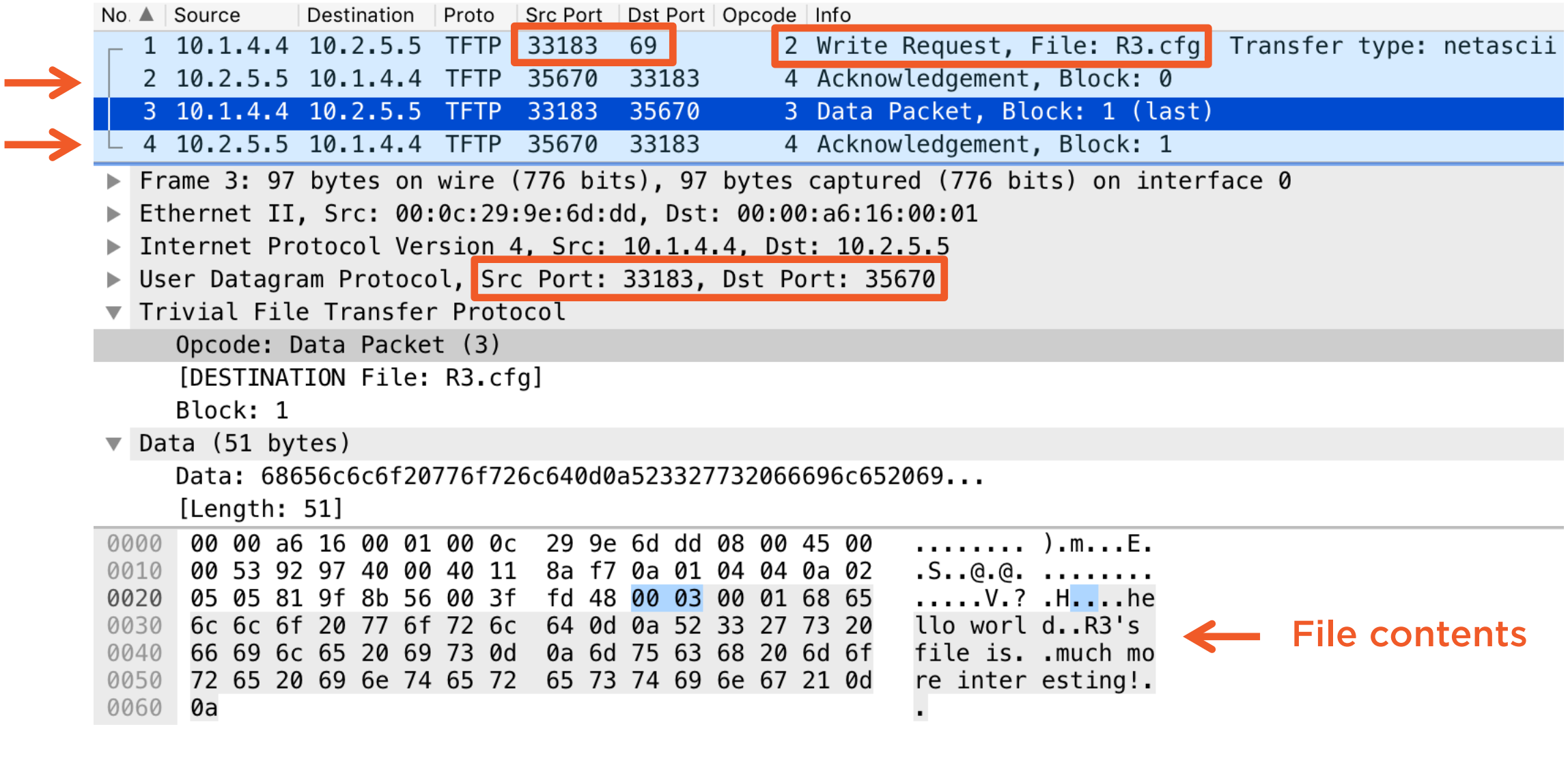


Demo

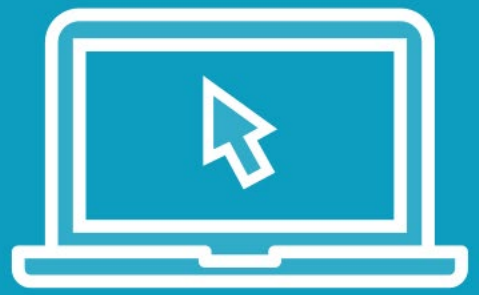


We should test uploads too!

TFTP Upload Analysis

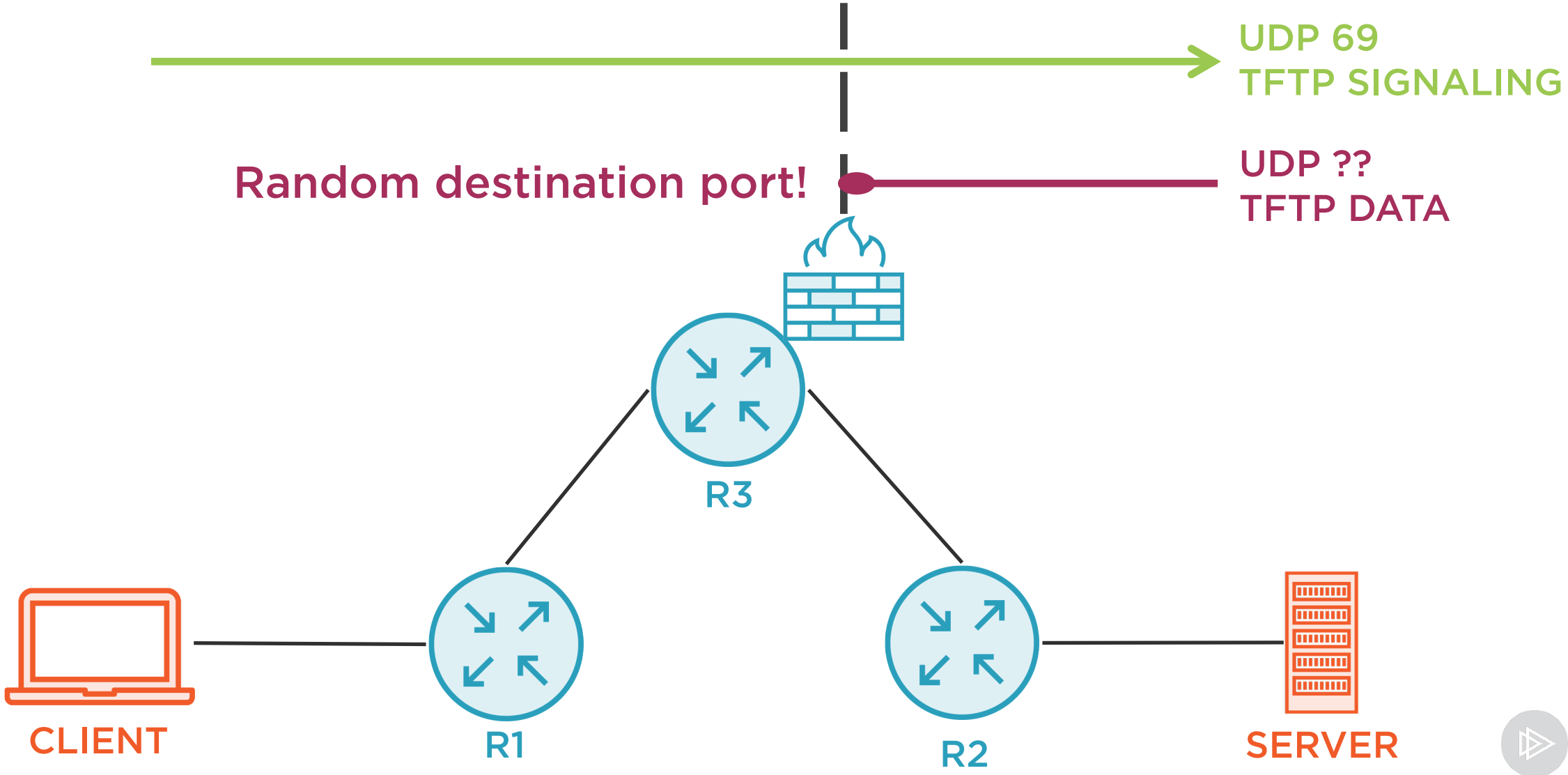


Demo



Attempting to secure TFTP

TFTP Security Challenge



Comparing TFTP and FTP

TFTP	FTP
Simple and featureless	Chatty and feature-rich
For internal use only	Some variants work well with FW/NAT
UDP with application-level acks	TCP with inherent acks
Good for quick transfers	Good for long-term file sharing