Token Bucket groups

Input Buffer

Real Queues

d_1

d_2
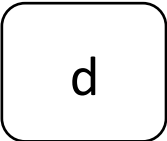
Data Packet for destination d
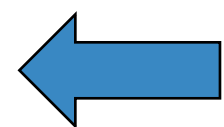
TCP I/O stream

Token Bucket

Shadow Packet Sender

Shadow Queue Sender

Shadow Queue Receiver

Shadow Packet receiver

Shadow Queue

Update Buffer
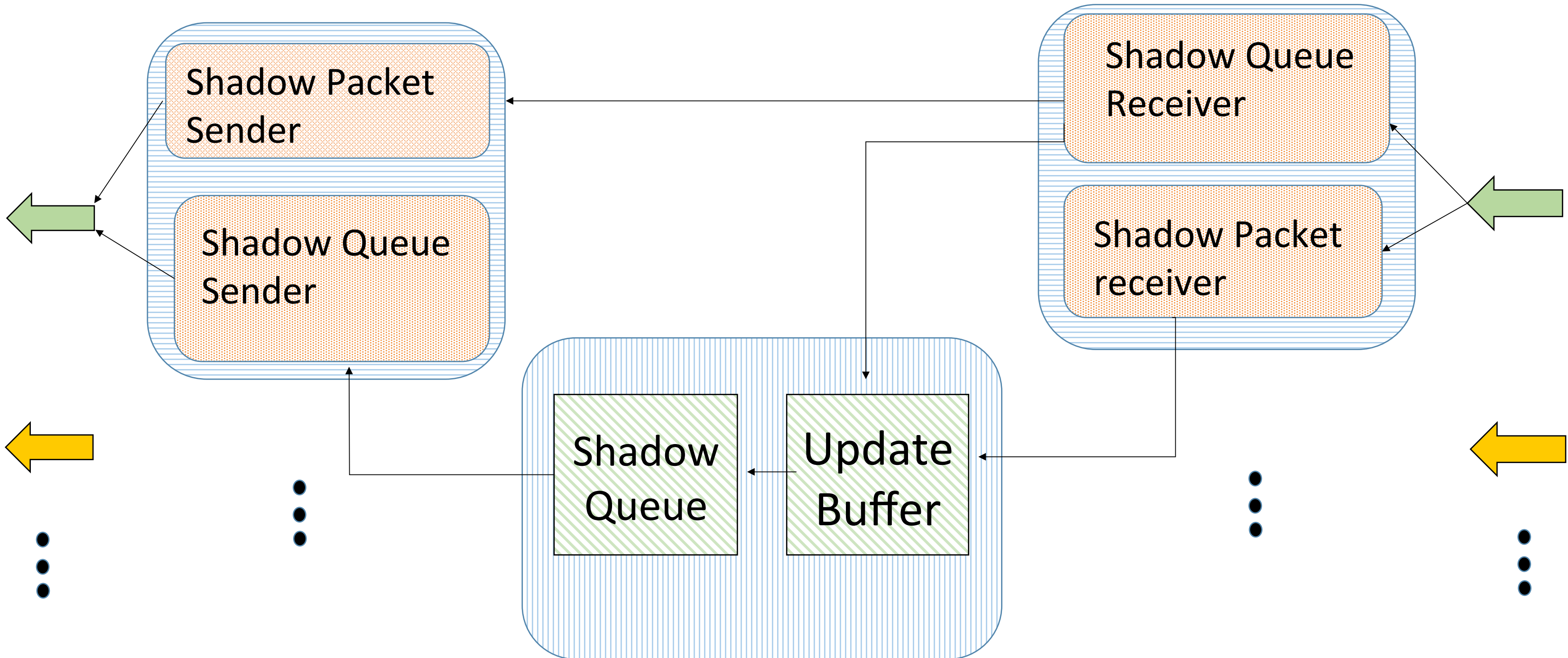
Per neighbour thread
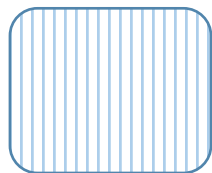
Thread

Synchronized Data Structures

Each token bucket group contains per neighbour token bucket

Per destination Token Bucket group

Input Buffer: A Synchronized FIFO Queue of Data Packets

Outgoing Data Channel: Per neighbour TCP/IP output byte stream

Real Queue: Per neighbour FIFO Data packet queue

Incoming Data Channel: Per neighbour TCP/IP input byte stream