Clustering Connections

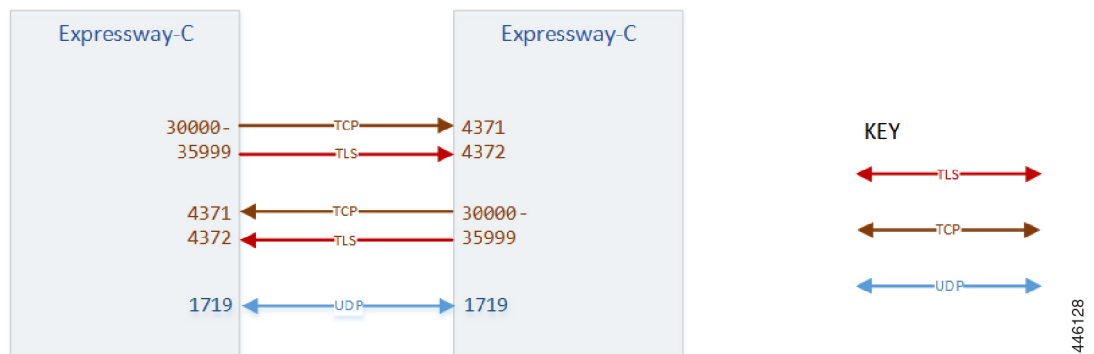## Cluster Connections Before X8.8
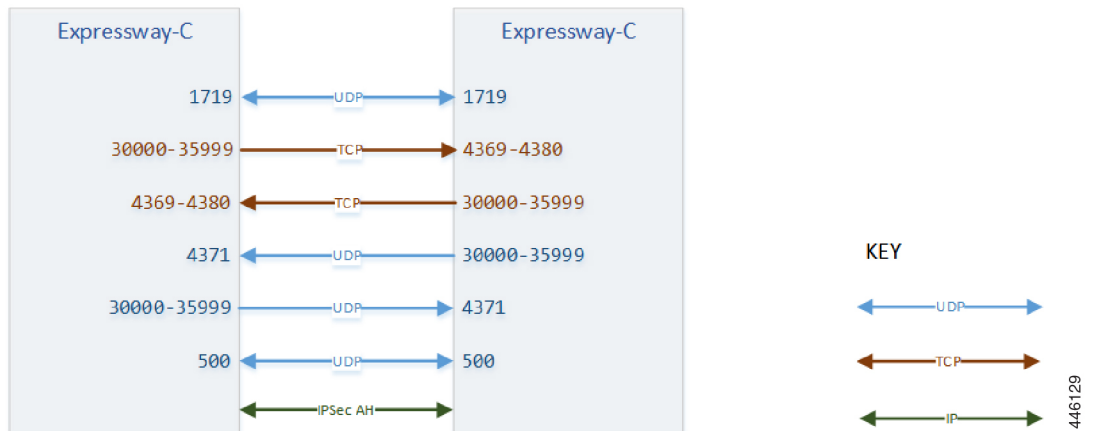
Cluster Port Reference Before X8.8

Table 1: Cluster Synchronization and Communications

Purpose	Src. IP	Src. Ports	Protocol	Dest. IP	Dest. Ports
Cluster database synchronization (IPSec AH)	This peer	N/A	51	Other peers	N/A

Purpose	Src. IP	Src. Ports	Protocol	Dest. IP	Dest. Ports
Key exchange between peers (ISAKMP)	This peer	500	UDP	Other peers	500
Cluster recovery	This peer	30000-35999	UDP	Other peers	4371
Cluster communication	This peer	30000-35999	TCP	Other peers	4369-4380
Bandwidth management (Expressway-C cluster only)	This peer	1719	UDP	Other peers	1719

Cluster Connections X8.8 Onwards

Cluster Port Reference X8.8 Onwards

Table 2: Expressway-C Cluster Database Synchronization and Communications

Purpose	Src. IP	Src. Ports	Protocol	Dest. IP	Dest. Ports
Cluster recovery	This peer	30000-35999	TCP	Other peers	4371
Cluster communication	This peer	30000-35999	TLS	Other peers	4372
Bandwidth management	This peer	1719	UDP	Other peers	1719

Table 3: SIP Calls Routed Between Peers (not shown on diagram)

Purpose	Src. IP	Src. Ports	Protocol	Dest. IP	Dest. Ports
SIP TCP Signaling	This peer	25000-29999	TCP	Other peers	5061
SIP TLS Signaling	This peer	25000-29999	TLS	Other peers	5061
RTP/RTCP	This peer	36000-59999	UDP	Other peers	36000-59999
Bandwidth management	This peer	1719	UDP	Other peers	1719

Note Dbxsh is a python script that connects to a cluster database on the local loopback address over port 4370. The Dbxsh does not need to authenticate the database before executing the commands. The port is open for connection and is strictly for internal use only. This is accessible from root only.