

idx	DIMENSIONS		(counts)	
0	listenerCnt::Int	(Ln)		
1	requestCnt::Int	(Rn)		
HEARTBEATS				
2	status::Int	heartbeat::Time	initialization::Time	(watchdog status & heartbeat)
5	status::Int	heartbeat::Time	initialization::Time	(server status & heartbeat)
8	listener[1]:hash	heartbeat::Time	requestReservation::Time	reservationAcknowledgement::Time
...				
8+(4*(Ln-1))	listener[n]::Hash	heartbeat::Time	requestReservation::Time	reservationAcknowledgement::Time
REQUESTS				
8+(4*Ln)	Listener[x]::Hash	MD5-of-Req#1	Response::Time	(request status, request, and timesrtamp of completion)
...				
8+(4*Ln)+(3*(Rn-1))	Listener[x]::Hash	MD5-of-Req#N	Response::Time	(request status, request, and timesrtamp of completion)

KEY:

Time:	TimeStamp	UInt64
Int:	Integer	UInt64
Hash:	Hash64	UInt64

KEY:

Time:	TimeStamp	UInt64
Int:	Integer	UInt64
Hash:	Hash64	UInt64

To make a request:

- 1) Listener updates its requestReservationTime
- 2) Watchdog looks for an available request slot \*\*
- 3) Watchdog Identifies an available slot with a listener hash
- 4) Listener finds slot identified for its usage
- 5) Listener writes request where server can see it
- 6) Listener does MD5 hash of request and updates its slot
- 6) Server sees a request slot, reads the request, and services it
- 7) Server writes the response where the listeners can see it
- 8) Server updates its request slot with the response time
- 9) Client sees the response time and reads the request
- 10) Watchdog looks for listener heartbeats that are greater than the request time

\*\*

(where listener heartbeats all exceed the response time by at least 1/2 second)