oid |-> [c |-> c1, seq |-> 1],op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1], ctx |-> { } ] >> )

```
\land soids = {}
                                                                                                                                                                                                                                                                                                                \land soids = {}
                                                                                                                                                                                                                                                                                                                                                                                                                                                              \land soids = {}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \land soids = {}
                                                                                                                                                        \land sincoming = << [ sctx |-> { },
                                                                                                                                                                                                                                                                                                      \land sincoming = << [ sctx |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                   \land sincoming = << [ sctx |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \land sincoming = << [ sctx | -> { } \},
                                                                                                                                                            oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                          oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                        oid |-> [c |-> c2, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oid |-> [c |-> c2, seq |-> 1],
                                                                                                                                                op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                              op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                           op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 2],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 2],
                                                                                                                                                                  ctx |-> { } ] >>
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ctx |-> { } ] >>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ctx |-> { } ] >>
                                                                                                                                                                                                                                                                                                                 ctx |-> { } ] >>
                                                                                                                                            \land ccur = (c1 :> {[c | -> c1, seq | -> 1]} @@ c2 :> {})
                                                                                                                                                                                                                                                                                         \land ccur = (c1 :> {[c | -> c1, seq | -> 1]} @@ c2 :> {})
                                                                                                                                                                                                                                                                                                                                                                                                                                        \land ccur = (c1 :> {} @ @ c2 :> {[c | -> c2, seq | -> 1]})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \land ccur = (c1 :> {} @ @ c2 :> {[c | -> c2, seq | -> 1]})
                                                                                                                                                                                                                                                                        \land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @@ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                         \land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @@ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                      \land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                  \land chins = {b}
                                                                                                                                                                                                                                                                                                                \land chins = {a}
                                                                                                                                                                                                                                                                                                                                                                                                                                                             \land chins = {b}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \land \text{ cseq} = (c1 :> 0 @ @ c2 :> 1)
                                                                                                                                                        \land \text{ cseq} = (c1 :> 1 @ @ c2 :> 0)
                                                                                                                                                                                                                                                                                                      \land \text{ cseq} = (c1 :> 1 @ @ c2 :> 0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                    \land \text{ cseq} = (c1 :> 0 @ @ c2 :> 1)
                                                                                                                                                      \land scur = (c1 :> {} @@ c2 :> {})
                                                                                                                                                                                                                                                                                                     \land scur = (c1 :> {} @ @ c2 :> {})
                                                                                                                                                                                                                                                                                                                                                                                                                                                   \land scur = (c1 :> {} @@ c2 :> {})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \land scur = (c1 :> {} @@ c2 :> {})
                                                                                                                                                \land cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                              \land cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                            \land cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \land cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \land css = (c1 :> [node | -> {\{\}}, edge | -> {\}}] @@
                                                                                                                                                                                                                                                                                                                                                                                                                                          \land css = (c1 :> [node | -> {\{\}}, edge | -> {\}}] @@
                                                                                                                                                                \land css = (c1:>
                                                                                                                                                                                                                                                                                                              \wedge \cos = (c1 :>
                                                                                                                                                      [ node \mid - \mid \{ \}, \{ [c \mid - \mid c1, seq \mid - \mid 1] \} \},
                                                                                                                                                                                                                                                                                                    [ node l \rightarrow \{\{\}, \{[c \mid -> c1, seq \mid -> 1]\}\},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   c2 :>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 c2 :>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                [ node l \to \{\{\}, \{[c \mid -> c2, seq \mid -> 1]\}\}\},
                                                                                                                                                                                                                                                                                                                                                                                                                                                   [ node \mid - \mid \{ \} \}, {[c \mid - \rangle c2, seq \mid - \rangle 1]}},
                                                                                                                                                                        edge I->
                                                                                                                                                                                                                                                                                                                      edge I->
                                                                                                                                                                                                                                                                                                                      { [ cop |->
                                                                                                                                                                        { [ cop |->
                                                                                                                                                                          [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                       [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     { [ cop |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   { [ cop |->
                                                                                                                                                                  oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                 oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [ sctx | -> { } ],
                                                                                                                                                     op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                   op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                              oid |-> [c |-> c2, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oid |-> [c |-> c2, seq |-> 1],
                                                                                                                                                                           ctx | -> \{\}],
                                                                                                                                                                                                                                                                                                                        ctx | -> \{\}],
                                                                                                                                                                                                                                                                                                                                                                                                                                                  op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 2],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 2],
                                                                                                                                                                        from |-> { },
                                                                                                                                                                                                                                                                                                                       from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ctx | -> \{\}],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ctx \mid -> \{\} ],
                                                                                                                                                               to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                             to l \to \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   from |-> { },
                                                                                                                                                                     lr |-> 0 ] } ] @ @
                                                                                                                                                                                                                                                                                                                   lr |-> 0]}]@@
                                                                                                                                                                                                                                                                                                                                                                                                                                                            to |-> \{[c \mid -> c2, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to |-> \{[c \mid -> c2, seq \mid -> 1]\},\
                                                                                                                                                      c2 :> [node |-> {{}}, edge |-> {}])
                                                                                                                                                                                                                                                                                                     c2 :> [node |-> {{}}, edge |-> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lr \mid -> 0 ] \} ] )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lr \mid -> 0 ] \} ] )
                                                                                                                                      ∧ state = (c1 :> <<a>> @@ c2 :> <<>> @@ Server :> <<>>)
                                                                                                                                                                                                                                                                                    ∧ state = (c1 :> <<b>> @ @ c2 :> <<>> @ @ Server :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                   \land state = (c1 :> <<>> @@ c2 :> <<a>> @@ Server :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \land state = (c1 :> <<>> @ @ c2 :> <<b>> @ @ Server :> <<>>)
                                                                                                                         \land sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @@ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                         \land sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                      \land sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \land sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                                         \land cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \land cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                              ∧ cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                            \land cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \land soids = {[c |-> c1, seq |-> 1]}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \land sincoming = <<>>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \land ccur = (c1 :> {[c | -> c1, seq | -> 1]} @@ c2 :> {})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \land cxss = (c1 :> [node | -> {\{\}}, edge | -> {\}}] @@
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [ node l \rightarrow \{\{\}, \{[c \mid -> c1, seq \mid -> 1]\}\},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            edge I->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            { [ cop |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oid l \to [c \mid -> c1, seq \mid -> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ctx | -> \{\}],
                                                                                                                                                                                      \land soids = {}
                                                                                                                                                                                                                                                                                                                                    \land soids = {}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \land soids = {}
                             \land sincoming = << [ sctx |-> { },
                                                                                                                                                                            \land sincoming = << [ sctx |-> { },
                                                                                                                                                                                                                                                                                                                          \land sincoming = << [ sctx |-> {},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \land sincoming = << [ sctx |-> { },
                                  oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                              oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lr \mid -> 0 ] \} ] )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oid |-> [c |-> c1, seq |-> 1],
                     op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                    op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                  op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \land chins = {b}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                        ctx | -> \{\}],
                                                                                                                                                                                                                                                                                                                                     ctx | -> \{\} ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \land \text{ cseq} = (c1 :> 1 @ @ c2 :> 0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ctx | -> \{\} ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \land scur = (c1 :> {[c | -> c1, seq | -> 1]} @@ c2 :> {[c | -> c1, seq | -> 1]})
                                                                                                                                                                                       [ sctx | -> { } { } { },
                                                                                                                                                                                                                                                                                                                                     [ sctx | -> { } { } { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [ sctx | -> { } ],
                                  oid l \to [c \to c1, seq \to 2],
                                                                                                                                                                                 oid |-> [c |-> c1, seq |-> 2],
                                                                                                                                                                                                                                                                                                                              oid |-> [c |-> c1, seq |-> 2],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \land cincoming = (c1:><<>>@@
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oid |-> [c |-> c2, seq |-> 1],
                     op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 1],
                                                                                                                                                                   op |-> [type |-> "Ins", pos |-> 2, ch |-> b, pr |-> 1],
                                                                                                                                                                                                                                                                                                                           op |-> [type |-> "Del", pos |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           c2 :>
                                                                                                                                                                                                                                                                                                                                                                                                                                                               op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 2],
                              ctx \mapsto \{[c \mapsto c1, seq \mapsto 1]\} \} >>
                                                                                                                                                                            ctx \mapsto \{[c \mapsto c1, seq \mapsto 1]\} \} >>
                                                                                                                                                                                                                                                                                                                          ctx \mapsto \{[c \mapsto c1, seq \mapsto 1]\} \} >>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      << [ sctx |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ctx |-> { } ] >>
      \land ccur = (c1 :> {[c | -> c1, seq | -> 1], [c | -> c1, seq | -> 2]} @@ c2 :> {})
                                                                                                                                                     \land ccur = (c1 :> {[c | -> c1, seq | -> 1], [c | -> c1, seq | -> 2]} @@ c2 :> {})
                                                                                                                                                                                                                                                                                                   \land ccur = (c1 :> {[c | -> c1, seq | -> 1], [c | -> c1, seq | -> 2]} @@ c2 :> {})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                 \land ccur = (c1 :> {[c | -> c1, seq | -> 1]} @@ c2 :> {[c | -> c2, seq | -> 1]})
\land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                             \land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}]
                                                                                                                                                                                                                                                                                            \land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                          \land cxss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                    \land chins = {b}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ctx |-> { } ] >> )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \land chins = {}
                                                                                                                                                                           \land \text{ cseq} = (c1 :> 2 @@ c2 :> 0)
                                                                                                                                                                                                                                                                                                                          \land \text{ cseq} = (c1 :> 2 @ @ c2 :> 0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \wedge \cos = (c1 :>
                              \land cseq = (c1 :> 2 @@ c2 :> 0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \land \text{ cseq} = (c1 :> 1 @ @ c2 :> 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [ node \mid - \mid \{ \} \}, {[c \mid - \mid c1, seq \mid - \mid 1]}},
                            \land scur = (c1 :> {} @@ c2 :> {})
                                                                                                                                                                           \land scur = (c1 :> {} @ @ c2 :> {})
                                                                                                                                                                                                                                                                                                                         \land scur = (c1 :> {} @@ c2 :> {})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \land scur = (c1 :> {} @@ c2 :> {})
                      \land cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                    \land cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                  ∧ cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            edge I->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ∧ cincoming = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                     \wedge \cos = (c1 :>
                                                                                                                                                                                                                                                                                                                                   \wedge \cos = (c1 :>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            { [ cop |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \wedge \cos = (c1 :>
                                                                                                                                                                                          [ node |->
                                                                                                                                                                                                                                                                                                                                        [ node |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [ node l \to \{\{\}, \{[c \mid -> c1, seq \mid -> 1]\}\},
                                                                                                                                                                                              { {},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oid |-> [c |-> c1, seq |-> 1],
                                        \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                      \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                     \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          { [ cop |->
                           \{[c \mid -> c1, seq \mid -> 1], [c \mid -> c1, seq \mid -> 2]\} \}
                                                                                                                                                                          \{[c \mid -> c1, seq \mid -> 1], [c \mid -> c1, seq \mid -> 2]\} \},
                                                                                                                                                                                                                                                                                                                        \{[c \mid -> c1, seq \mid -> 1], [c \mid -> c1, seq \mid -> 2]\}\},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ctx | -> \{\} ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [ sctx | -> { } ],
                                                                                                                                                                                            edge |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                            { [ cop |->
                                                                                                                                                                                                                                                                                                                                          { [ cop |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                               [ sctx | -> \{ \},
                                                                                                                                                                                              [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                                            [ sctx | -> { } { } { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lr |-> 0 ] } ] @ @
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ctx | -> \{\}],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          c2 := [node \mid -> \{\{\}\}, edge \mid -> \{\}])
                                        oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                       oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                     oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         from |-> { },
                           op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \land state = (c1 :> <<a>> @@ c2 :> <<>> @@ Server :> <<a>>)
                                                                                                                                                                          op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                        op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                ctx | -> \{\} ],
                                                                                                                                                                                               ctx | -> \{\}],
                                                                                                                                                                                                                                                                                                                                            ctx | -> \{\} ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \land sss = (c1:>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lr |-> 0]}]@@
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [ node \mid - \mid \{ \} \}, {[c \mid - \mid c1, seq \mid - \mid 1]}},
                                                                                                                                                                                            from |-> { },
                                                                                                                                                                                                                                                                                                                                          from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       c2:>
                                                                                                                                                                                    to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                  to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                     to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [ node l \to \{\{\}, \{[c \mid -> c2, seq \mid -> 1]\}\},
                                                                                                                                                                                             lr \mid -> 0],
                                                                                                                                                                                                                                                                                                                                            lr \rightarrow 0],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             { [ cop |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        edge I->
                                                                                                                                                                                               [ cop l->
                                                                                                                                                                                                                                                                                                                                            [ cop |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [ \operatorname{sctx} \vdash \{\},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          { [ cop |->
                                               [ sctx | -> { } { } { },
                                                                                                                                                                                             [ sctx | -> \{ \},
                                                                                                                                                                                                                                                                                                                                            [ sctx | -> { } { } { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                        oid |-> [c |-> c1, seq |-> 2],
                                                                                                                                                                                       oid |-> [c |-> c1, seq |-> 2],
                                                                                                                                                                                                                                                                                                                                     oid |-> [c |-> c1, seq |-> 2],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oid |-> [c |-> c2, seq |-> 1],
                           op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 1],
                                                                                                                                                                         op |-> [type |-> "Ins", pos |-> 2, ch |-> b, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                 op |-> [type |-> "Del", pos |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ctx \mid -> \{\} ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       op |-> [type |-> "Ins", pos |-> 1, ch |-> b, pr |-> 2],
                                     ctx \mapsto \{[c \mapsto c1, seq \mapsto 1]\}\}
                                                                                                                                                                                    ctx \mid -> \{[c \mid -> c1, seq \mid -> 1]\} \}
                                                                                                                                                                                                                                                                                                                                  ctx \mid -> \{[c \mid -> c1, seq \mid -> 1]\} \}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ctx | -> \{\}],
                                    from - \{ [c - c1, seq - 1] \},
                                                                                                                                                                                  from |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                 from l \to \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lr |-> 0]}]@@
                          to |-> \{[c \mid -> c1, seq \mid -> 1], [c \mid -> c1, seq \mid -> 2]\},
                                                                                                                                                                        to |-> \{[c \mid -> c1, seq \mid -> 1], [c \mid -> c1, seq \mid -> 2]\},
                                                                                                                                                                                                                                                                                                                       to |-> \{[c \mid -> c1, seq \mid -> 1], [c \mid -> c1, seq \mid -> 2]\},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to |-> \{[c \mid -> c2, seq \mid -> 1]\},\
                                           lr |-> 0 ] } ] @ @
                                                                                                                                                                                          lr |-> 0 ] } ] @@
                                                                                                                                                                                                                                                                                                                                       lr |-> 0 ] } ] @ @
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           c2 :>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lr \mid -> 0 \mid \} \mid )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [ node \mid - \mid \{ \} \}, {[c \mid - \mid c1, seq \mid - \mid 1]}},
                           c2 :> [node |-> {{}}, edge |-> {{}}])
                                                                                                                                                                           c2 :> [node |-> {{}}, edge |-> {{}}])
                                                                                                                                                                                                                                                                                                                        c2 :> [node |-> {{}}, edge |-> {}])
                                                                                                                                                                                                                                                                                                                                                                                                                                                      \land state = (c1 :> <<a>> @@ c2 :> <<b>> @@ Server :> <<>>)
          \land state = (c1 :> <<b, a>> @ @ c2 :> <<>> @ @ Server :> <<>>)
                                                                                                                                                        ∧ state = (c1 :> <<a, b>> @ @ c2 :> <<>> @ @ Server :> <<>>)
                                                                                                                                                                                                                                                                                                        \land state = (c1 :> << >> @@ c2 :> <<>> @@ Server :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                           \land sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
\Lambda sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @@ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                             \land sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                              \land sss = (c1 :> [node | -> {{}}, edge | -> {{}}] @ @ c2 :> [node | -> {{}}, edge | -> {{}}])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           { [ cop |->
                                                                                                                                                                                                                                                                                                                                                                                                                                                              \land cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                   \land cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                  \land cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                \land cincomingCJ = (c1 :> <<>> @ @ c2 :> <<>>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [ sctx | -> { } ],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oid |-> [c |-> c1, seq |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          op |-> [type |-> "Ins", pos |-> 1, ch |-> a, pr |-> 1],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ctx | -> \{\}],
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from |-> { },
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to |-> \{[c \mid -> c1, seq \mid -> 1]\},\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lr |-> 1 ] } ])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \land cincomingCJ = (c1:><<>>@@
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           c2 :>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      << [ sctx |-> { },
```

 $\land$  soids = {}

 $ctx | -> \{\} ],$ 

 $[ sctx | -> { } ],$ 

 $\land$  chins = {}

 $\wedge \cos = (c1 :>$ 

[ node |->

{ [ cop |->

from |-> { },

 $lr \mid -> 0$ ],

[ cop |->