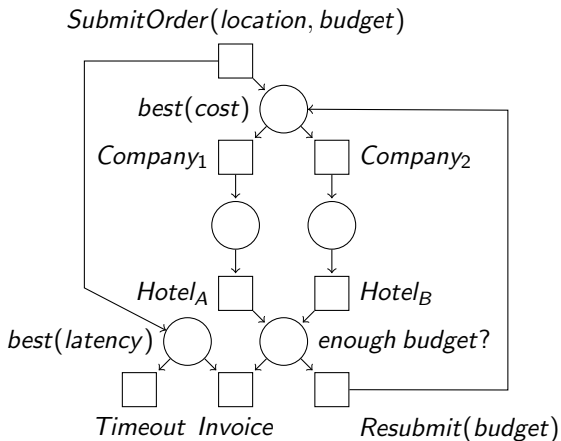


Small example in a Petri net style



- ▶ Data-dependent workflow
- ▶ Multi-dimensional QoS

QoS computation in a Petri net style

- ▶ Partially ordered QoS domain (\leq)
- ▶ QoS increments are associated with transitions occurrences (site calls)
- ▶ QoS constructors ($\oplus, \triangleleft, \vee$)
- ▶ QoS values are attached to tokens

ORC (Misra's group at Austin UT)

- ▶ **Sites:** the fundamental unit of computation. Similar to functions but may be remote and therefore unreliable
- ▶ **Combinators:** only four:
 - ▶ Parallel, written $f|g$
 - ▶ Sequential, written $f > x > g$
 - ▶ Pruning, written $f < x < g$
 - ▶ Otherwise, written $f;g$
- ▶ functions
- ▶ a lot of built-in sites

ORC with QoS

- ▶ Introduction of the best-pruning combinator
- ▶ Separate description of the composite QoS domain and its related algebra
- ▶ The original ORC program is then weaved (instrumented) with the QoS description
- ▶ Publications of the weaved program contain the QoS information