Direct Attachment of Execute Point to Access Point

EU HTCondor Workshop 2022
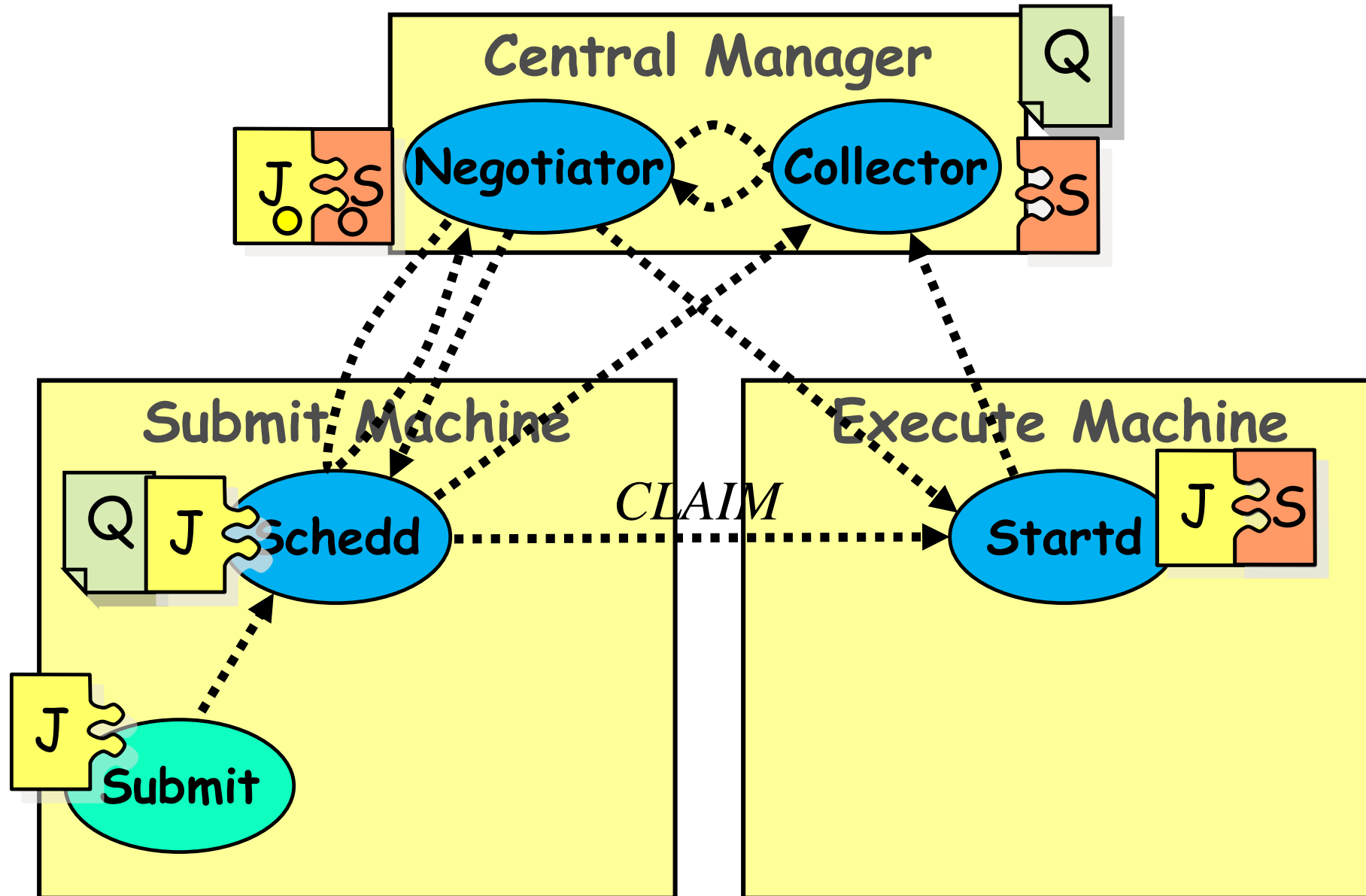
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The Old Model

› HTCondor Pool
  - Multiple Access Points
  - Multiple Execution Points
  - One Central Manager

› Central Manager is locus of control
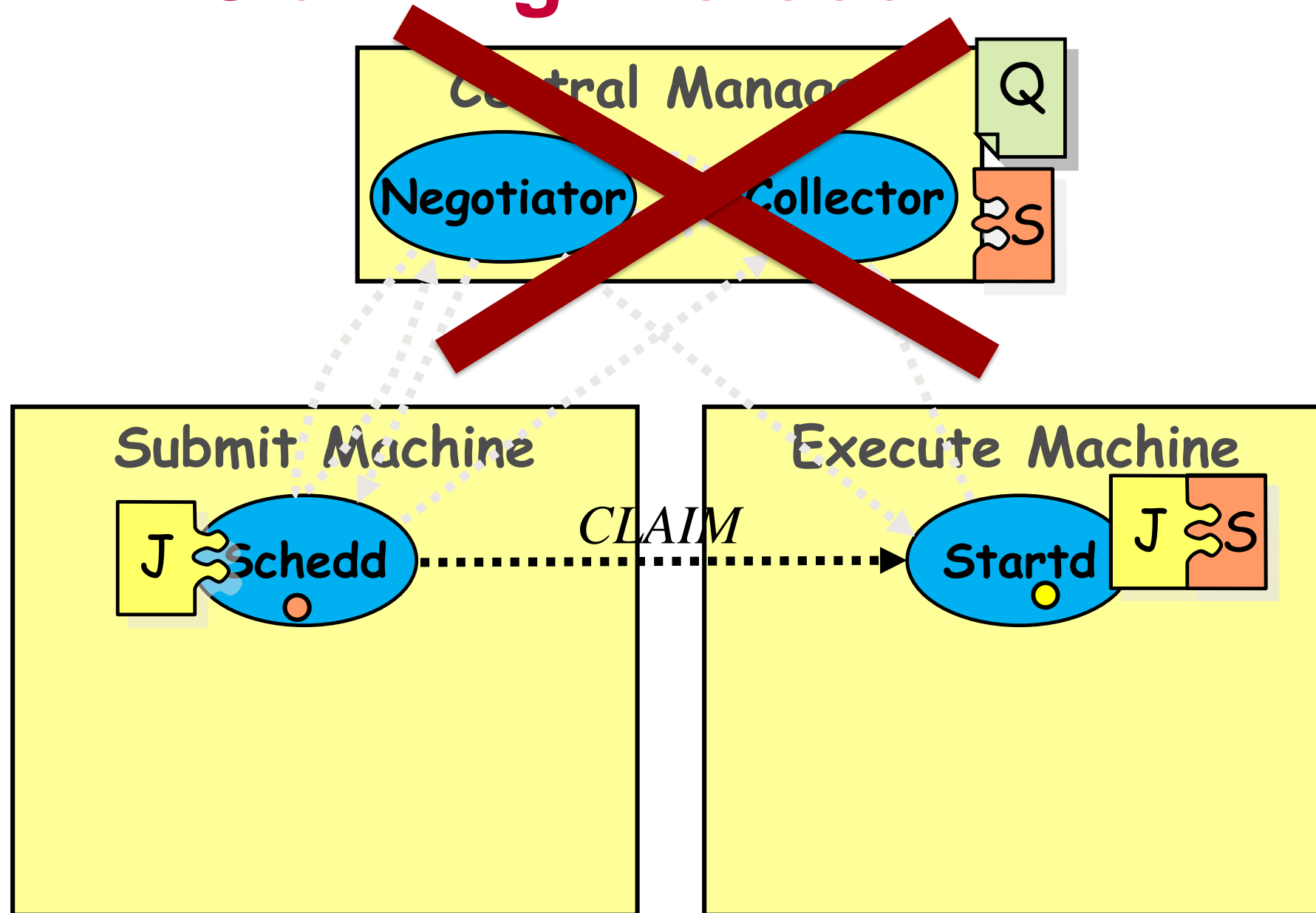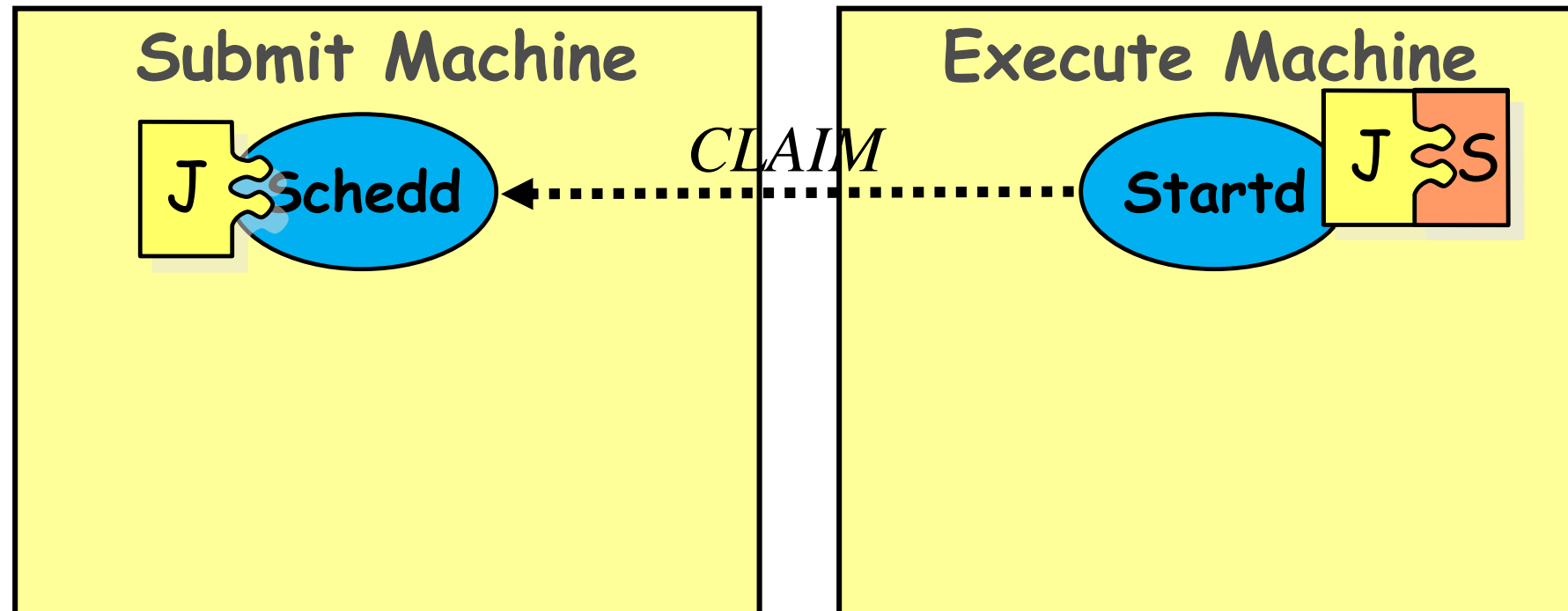 - Mediates relationships between APs and EPs

Claiming Protocol

A New Model

› Bespoke Execution Points
  - EP is created for use by a specific Access Point
  - E.g., Annex
› No need for a Central Manager
  - EP can attach directly to its intended AP

Claiming Protocol

Claiming Protocol

Benefits

› Reduces complexity

› Allows AP to be a standalone entity

› Simplifies users adding their own EPs to a shared AP/pool
  - Bring your own capacity

Bring Your Own Capacity

› Users adding their own EPs to a shared pool is a security mess

- Users need credential for writing to the collector
- Collector/negotiator must ensure user EPs won't run other users' jobs

› Per-user flocking helps some

- Requires user to set up personal collector

User Direct Attachment

› User requests IDToken from AP

  • Token may include name of job set

› User launches EPs

  • Provides token and address of AP

  • Tools from HTCSS or others can aid in deployment

› EPs contact AP and present token

› AP schedules jobs for EPs

  • Restricts based on user and optionally job set

Thank You!