Consulting Services

JobScheduler
Architecture Decision Template

Information for Consulting Parties

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Consulting Services

Architecture Decisions

Architecture Decision Template

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Supervisor JobScheduler

- Passive & Active Cluster Support,
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- Central Configuration

Platforms: JobScheduler Master / JobScheduler Agent

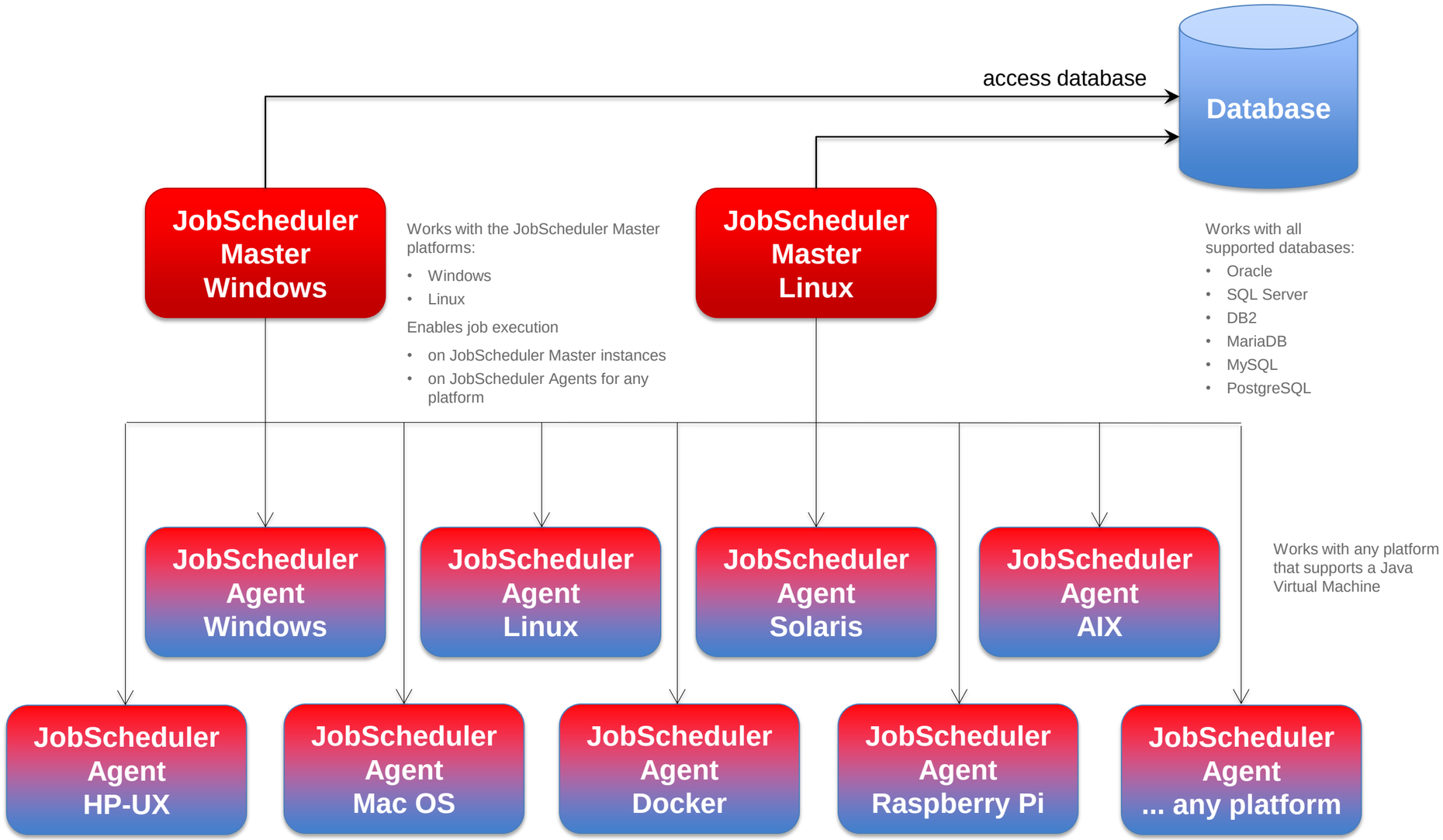
Architecture Decision Templates: Supported Platforms

Master/Agent Platforms

- JobScheduler Master uses a database that is located on any platform
- JobScheduler Master is available for Windows and Linux
- JobScheduler Agents are available for any platform that supports a Java Virtual Machine

Job Execution

- Jobs are executed locally on the JobScheduler Master.
- Jobs are executed on a remote JobScheduler Master instance
- Jobs are executed on any JobScheduler Agent.
- JobScheduler Agents enable remote file watching, i.e. they trigger job starts in the JobScheduler Master for incoming files



Architecture: JobScheduler Agent Cluster

Architecture Decision Templates: Agent Cluster

Master/Agent Platforms

- JobScheduler Master is available for Windows and Linux
- JobScheduler Agents are available for any platform that supports a Java Virtual Machine

Agent Cluster

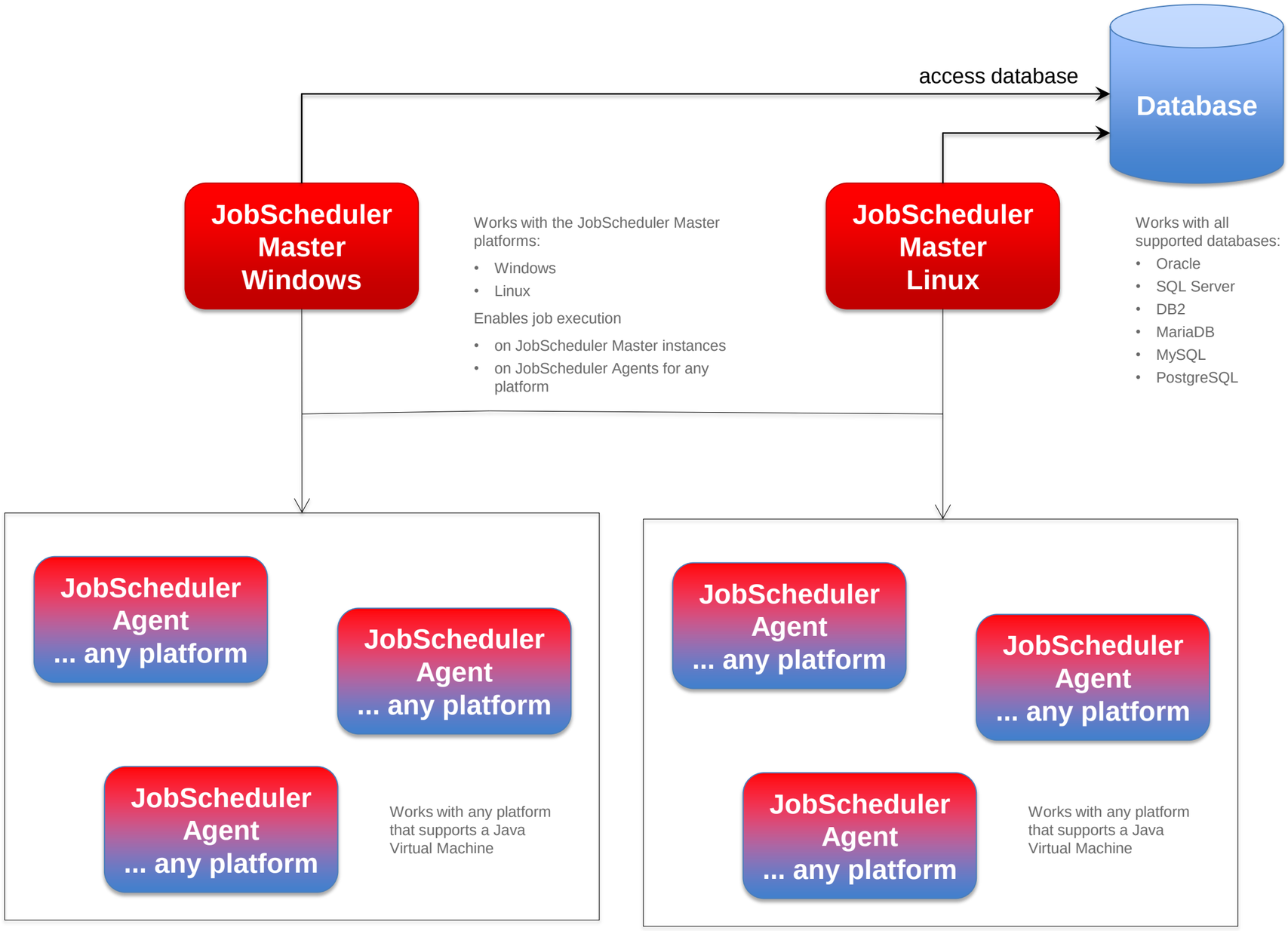
- Agents can be configured to work in a Cluster.

Fixed Priority Scheduling

- JobScheduler Master selects the first available Agent from a Cluster for job execution.
- Should an Agent not be available then the next available Agent is used.

Round-Robin Scheduling

- JobScheduler Master switches the Agent used for each job execution.
- Should an Agent not be avialable the the next available Agent is used.



Architecture: Primary JobScheduler Master

Architecture Decision Templates: Master Passive Cluster

Passive Cluster

- Primary and Backup JobScheduler Master use the same database
- Primary JobScheduler Master is monitored by its failover instance
- Failover instance operates in stand-by mode
- All connections to servers use the SSH protocol

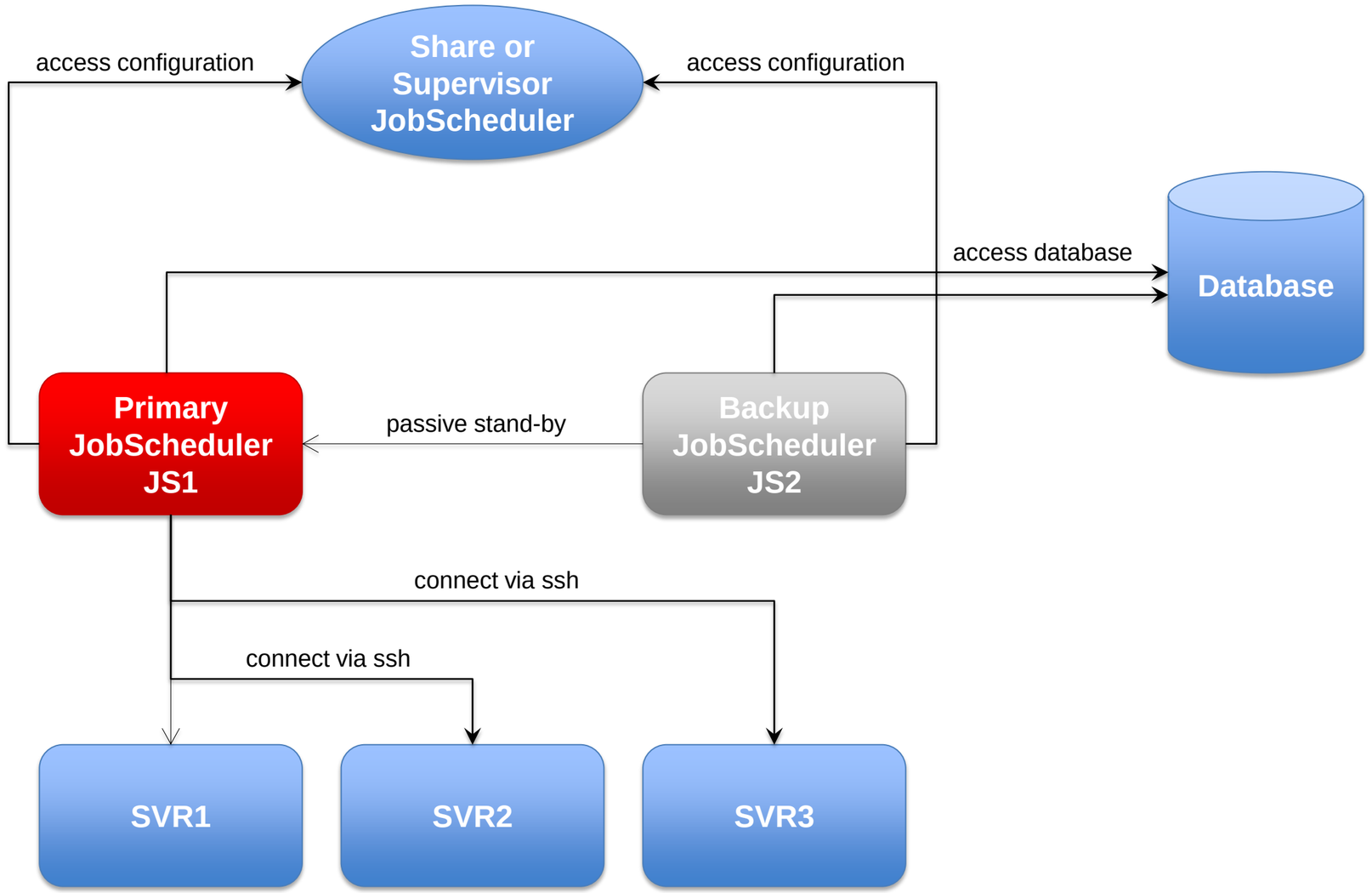
SSH Connections

JITL Jobs

- Requires a JVM per task
- Memory resources

SSH Client

- No pre-/post-processing
- No substitution of parameters in script files
- Script files have to be provided on the target system



Architecture: Backup JobScheduler Master

Architecture Decision Templates: Master Passive Cluster

Passive Cluster

- Primary and Backup JobScheduler Master both use the same database
- Backup JobScheduler Master is active after failure of Primary instance
- Primary instance operates in stand-by mode
- All connections to servers use the SSH protocol

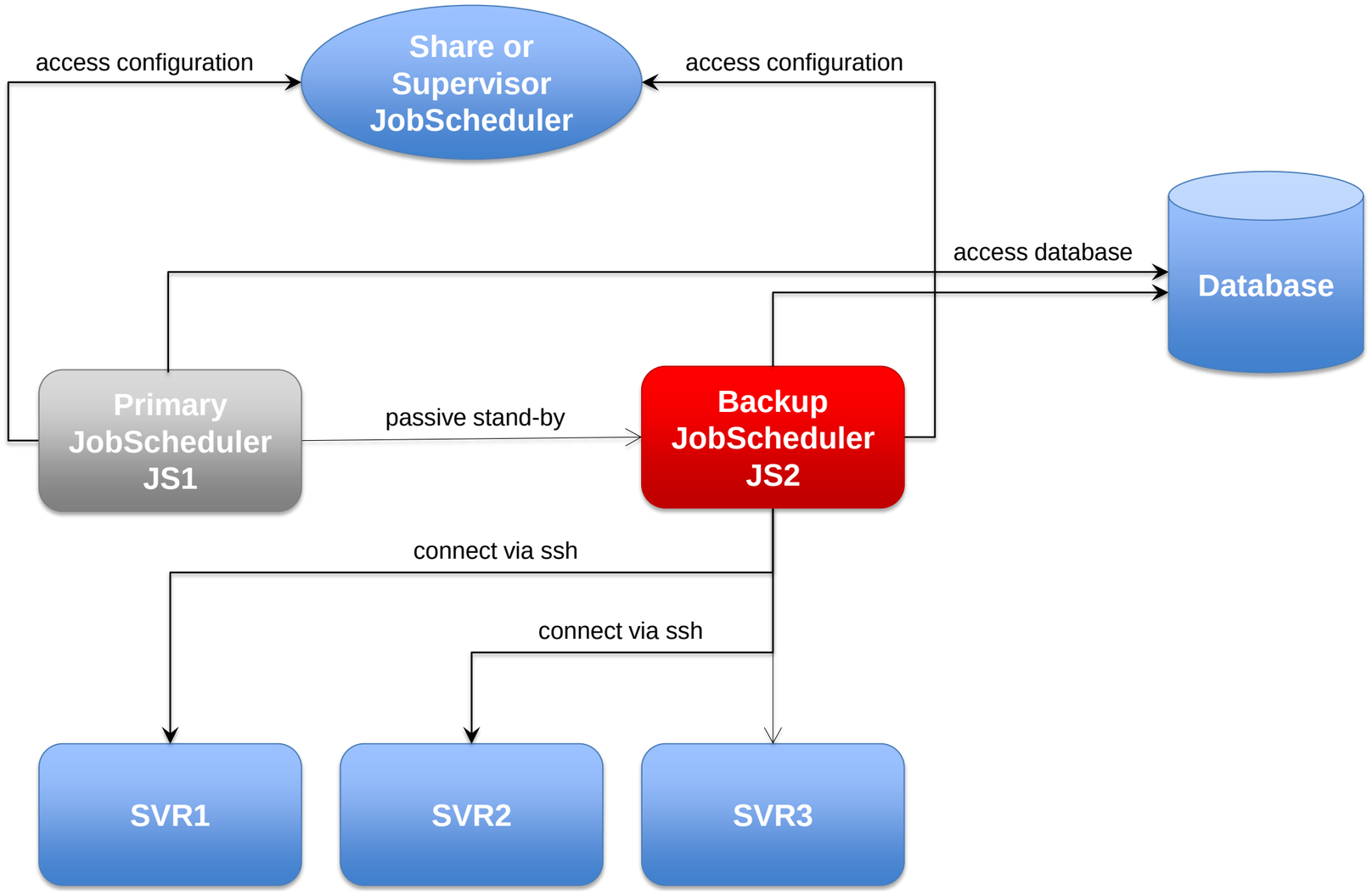
SSH Connections

JITL Jobs

- Requires a JVM per task
- Memory resources

SSH Client

- No pre-/post-processing
- No substitution of parameters in script files
- Script files have to be provided on the target system



Architecture: Active Cluster JobScheduler Master

Architecture Decision Templates: Master Active Cluster

Active Cluster

- JobScheduler Cluster members use the same database
- JobScheduler Cluster members share the workload of jobs
- All Instances operate in active mode
- All connections to servers use the ssh protocol

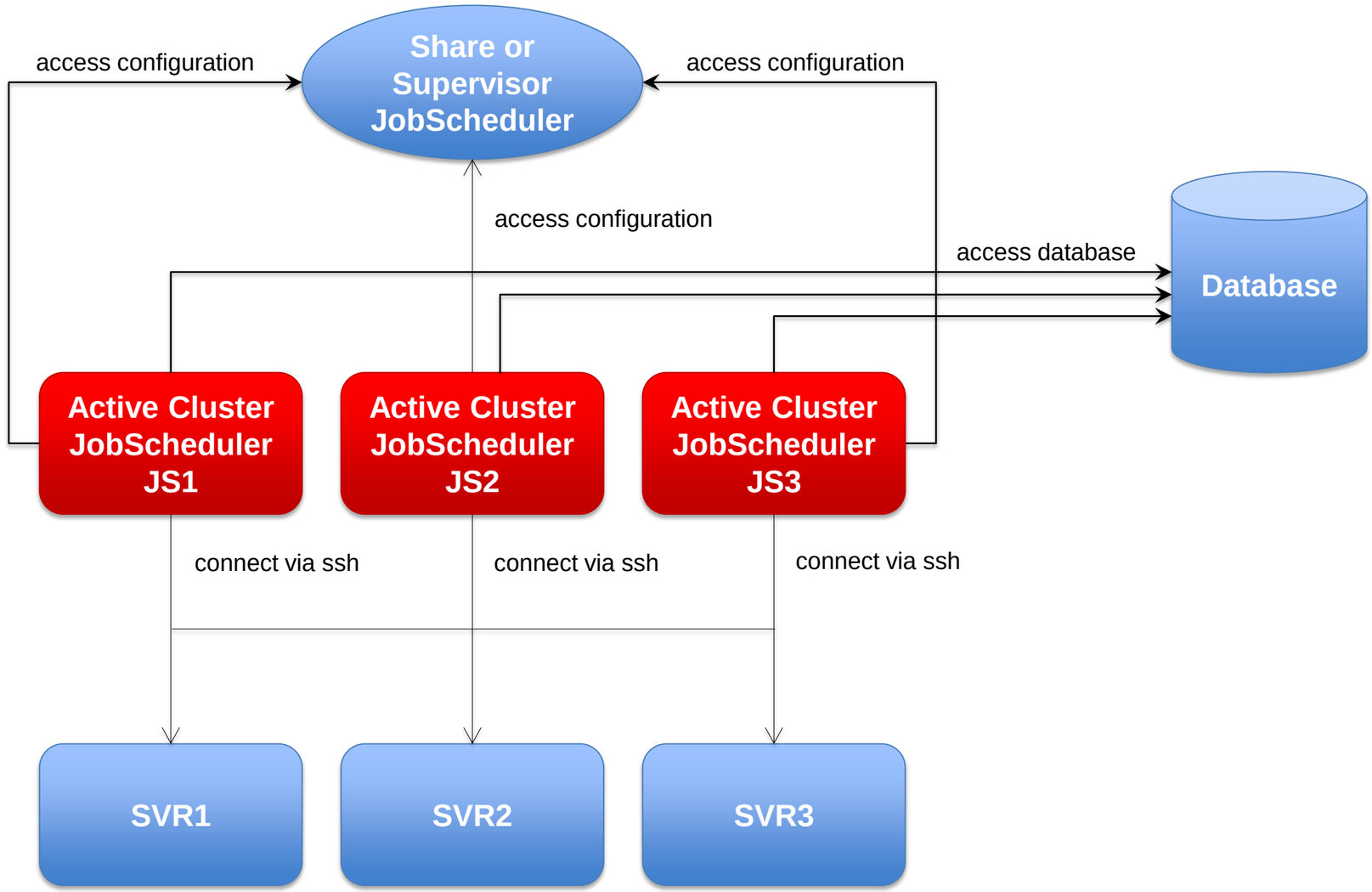
SSH Connections

JITL Jobs

- Requires a JVM per task
- Memory resouces

SSH Client

- No pre-/post-processing
- No substitution of parameters in script files
- Script files have to be provided on the target system



Architecture: Active Cluster JobScheduler with failed instance

Architecture Decision Templates: Master Active Cluster

Active Cluster

- JobScheduler Cluster members use the same database
- JobScheduler Cluster members share the workload of jobs
- All Instances operate in active mode
- All connections to servers use the ssh protocol

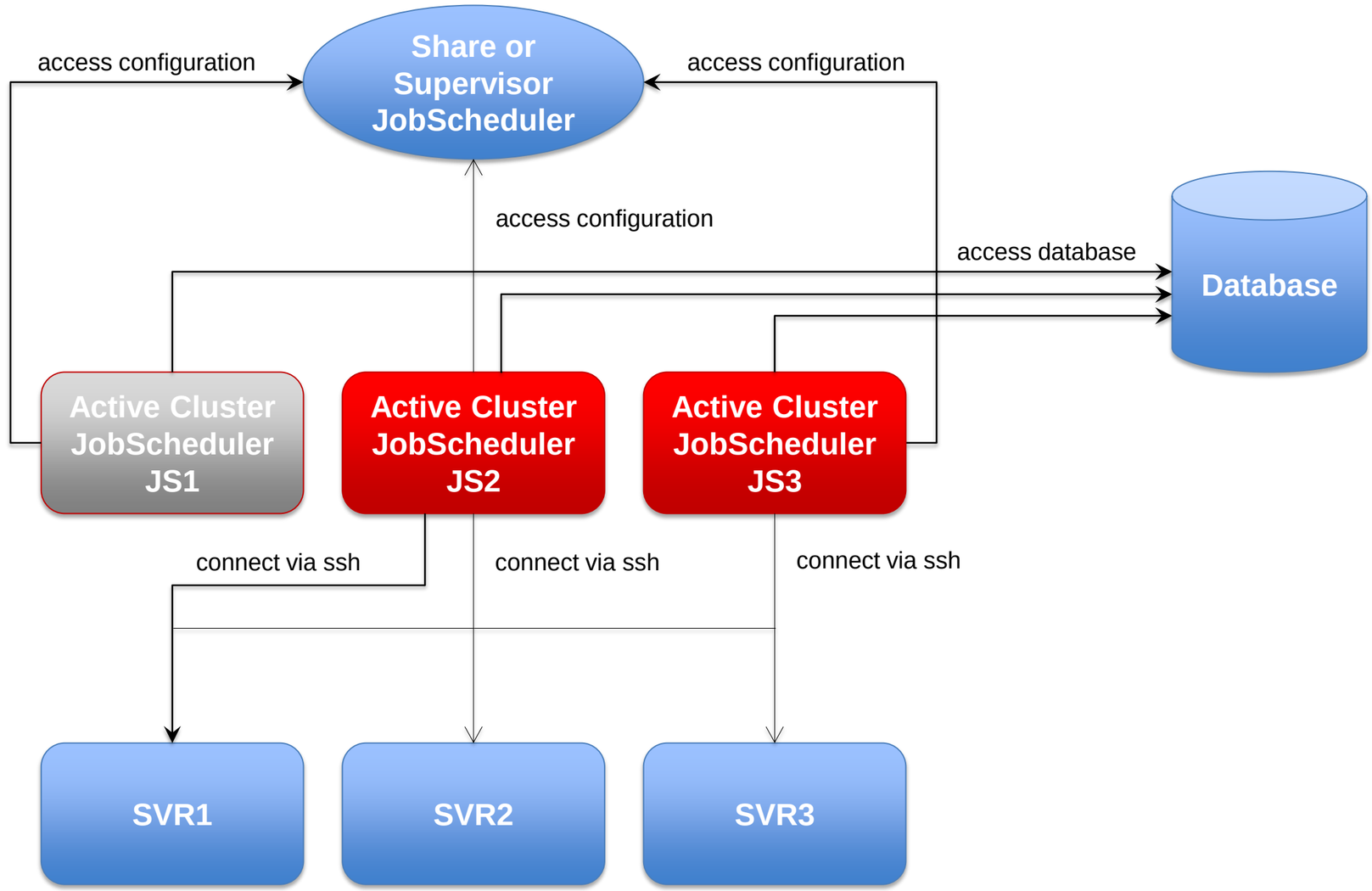
SSH Connections

JITL Jobs

- Requires a JVM per task
- Memory resources

SSH Client

- No pre-/post-processing
- No substitution of parameters in script files
- Script files have to be provided on the target system



Architecture: Master/Agent Passive Cluster JobScheduler

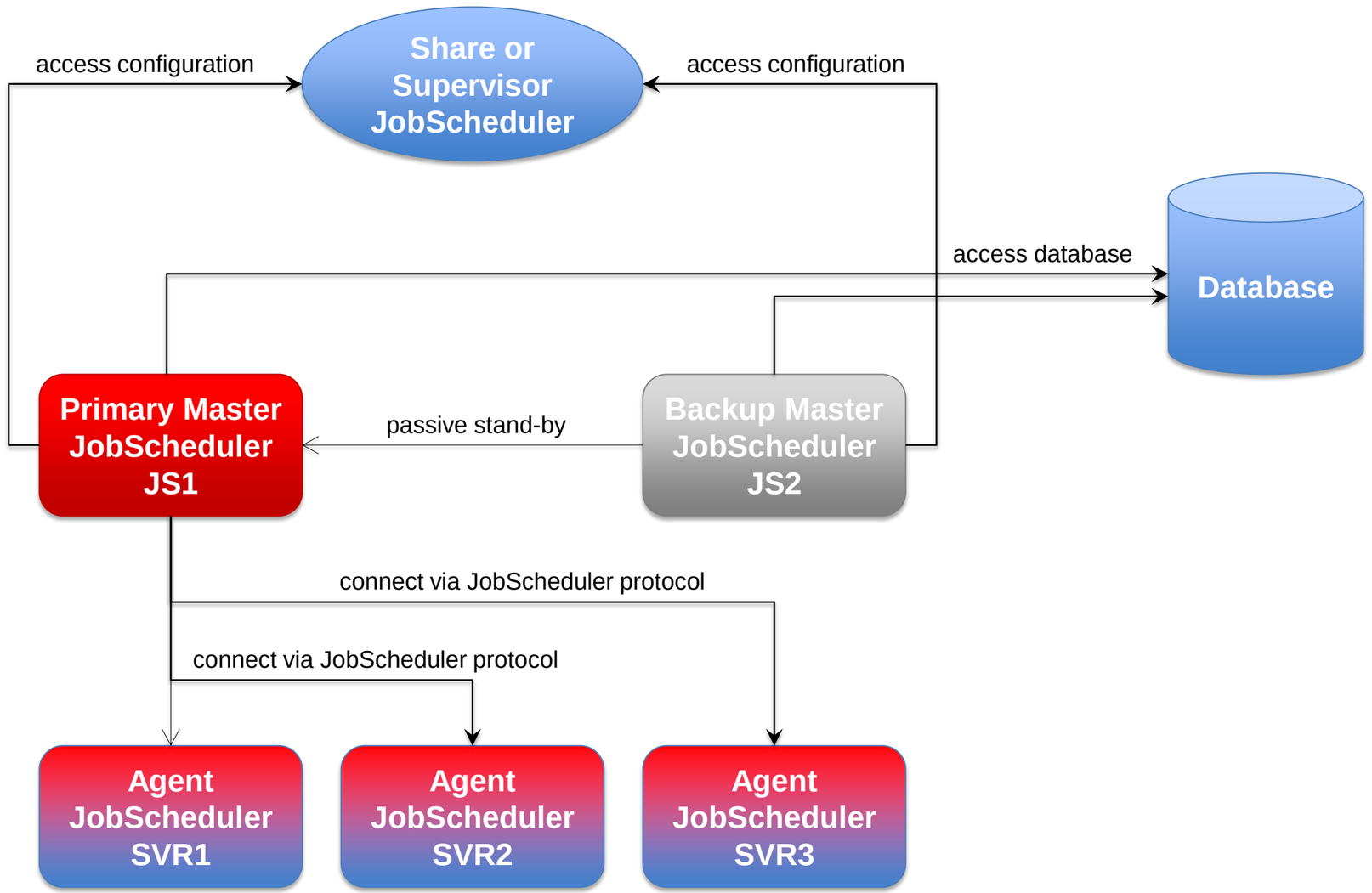
Architecture Decision Templates: Master/Agent Passive Cluster

Master/Agent Passive Cluster

- Primary and Backup JobScheduler use the same database
- Primary JobScheduler is monitored by its Backup instance
- Backup instance operates in stand-by mode
- All Cluster instances use Agents to execute jobs on remote servers
- Connections to servers use the internal protocol

Job Execution

- Jobs are executed locally per JobScheduler Agent.
- No central resources required for job execution
- Pre-/post-processing
- Use of JITL Jobs or script files with parameter substitution



Architecture: Master/Agent Active Cluster JobScheduler

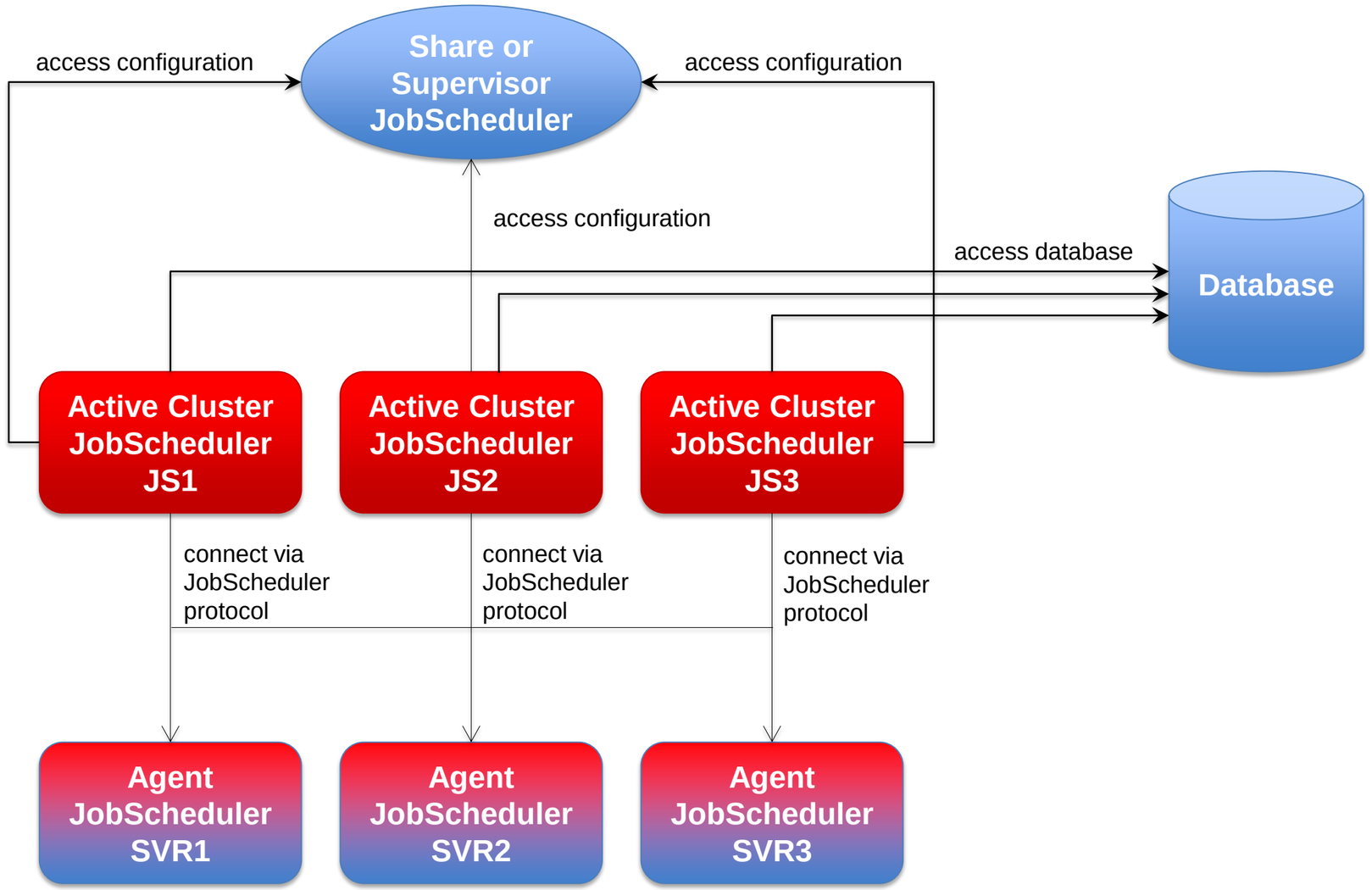
Architecture Decision Templates: Master/Agent Active Cluster

Master/Agent Active Cluster

- JobScheduler Cluster members use the same database
- JobSchedulers Cluster members share the workload of jobs
- All Instances operate in active mode
- All Cluster instances use Agents to execute jobs on remote servers

Job Execution

- Jobs are executed locally per JobScheduler Agent.
- No central resources required for job execution
- Pre-/post-processing
- Use of JITL Jobs or script files with parameter substitution



Architecture: Supervisor for Master Passive Cluster

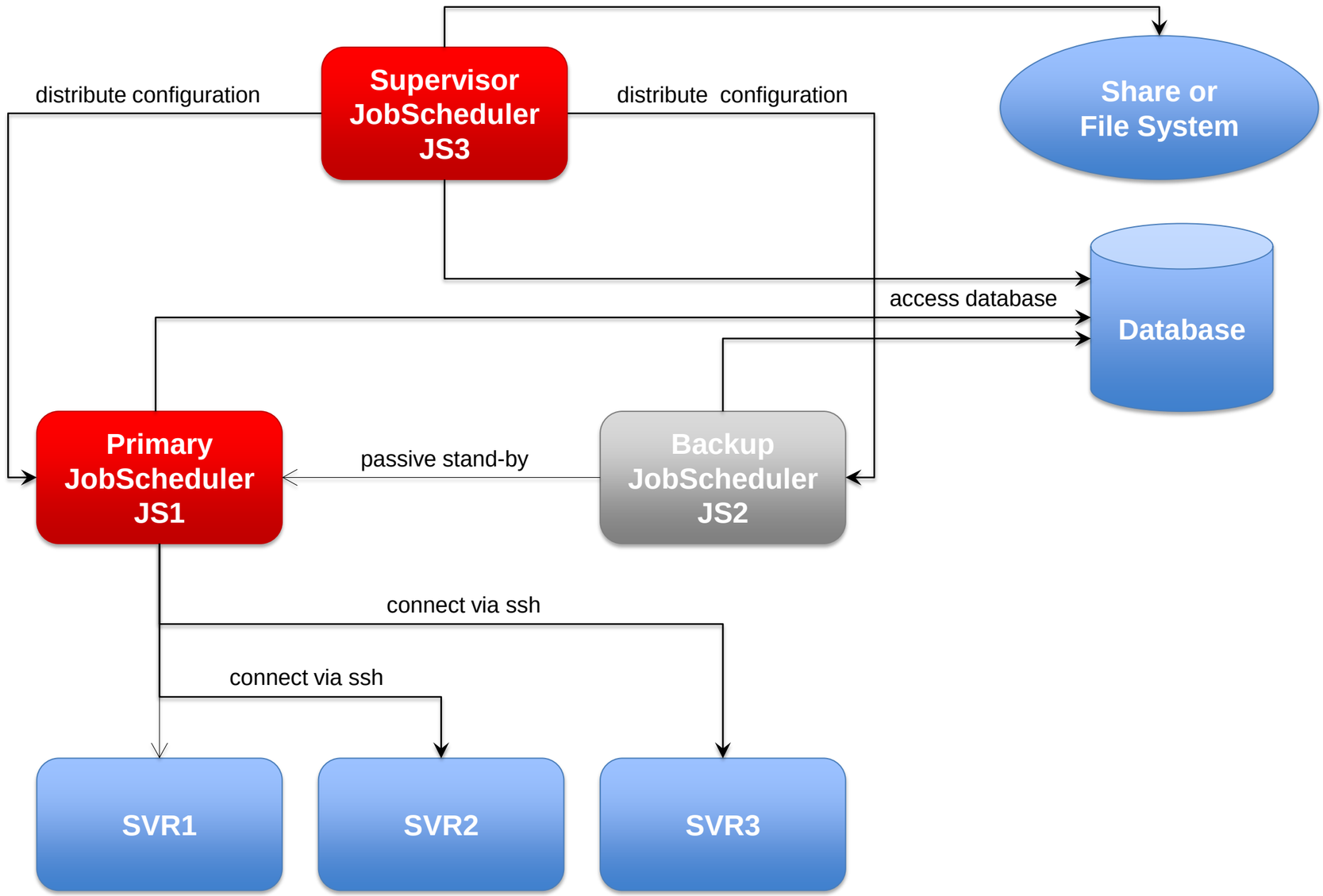
Architecture Decision Templates: Supervisor JobScheduler

Passive Cluster

- Primary and Backup JobScheduler use the same database
- Primary JobScheduler is monitored by its Backup instance
- Backup instance operates in stand-by mode
- All connections to servers use the ssh protocol

Supervisor JobScheduler

- Distribute configuration to Primary and Backup JobScheduler instances



Architecture: Supervisor for Master Active Cluster

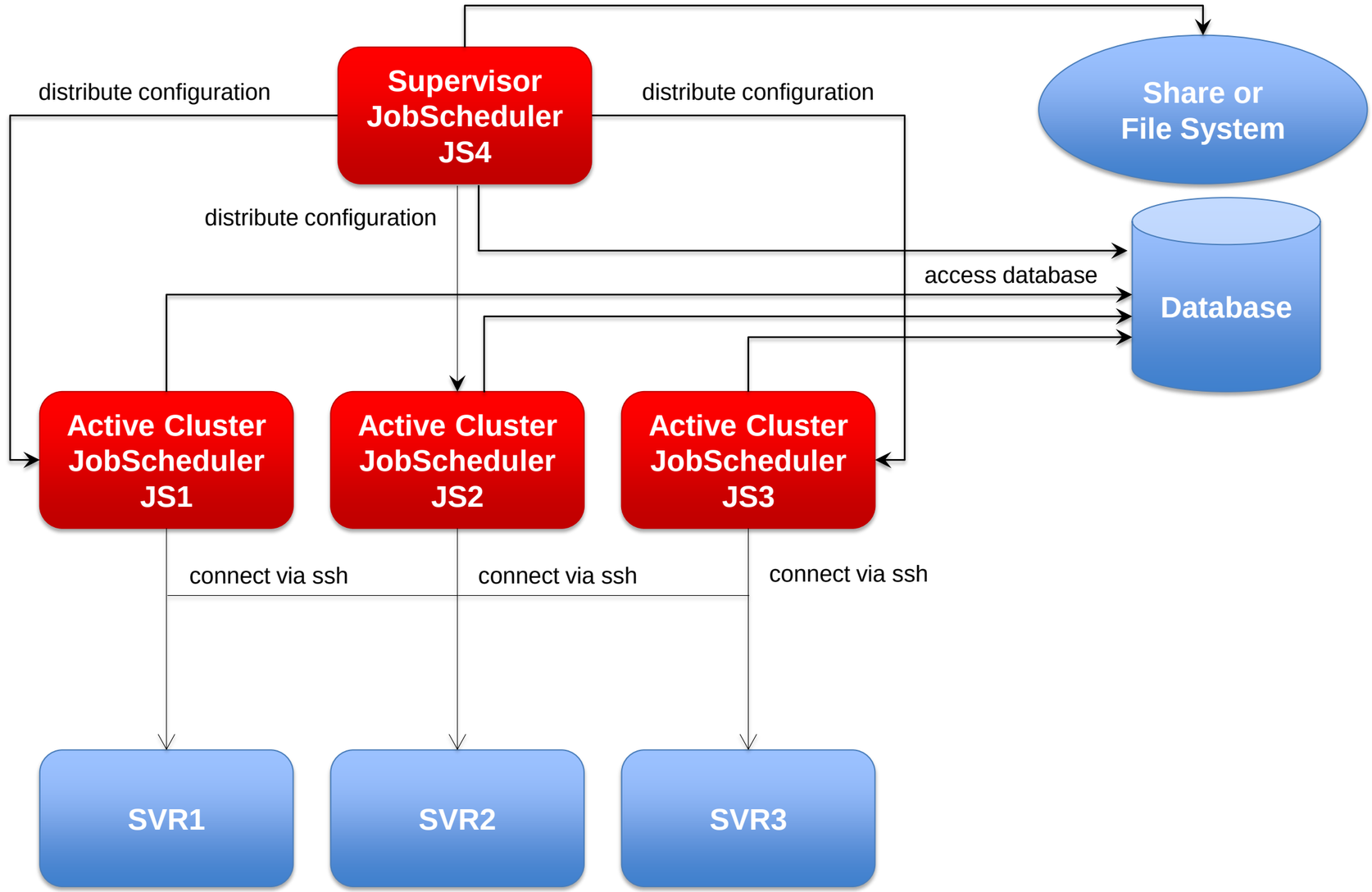
Architecture Decision Templates: Supervisor JobScheduler

Active Workload JobScheduler Cluster

- JobScheduler Cluster members use the same database
- JobScheduler Cluster members share the workload of jobs
- All Instances operate in active mode
- All connections to servers use the ssh protocol

Supervisor JobScheduler

- Distribute configuration to Cluster JobScheduler instances



Architecture: Supervisor for Master/Agent Active Cluster

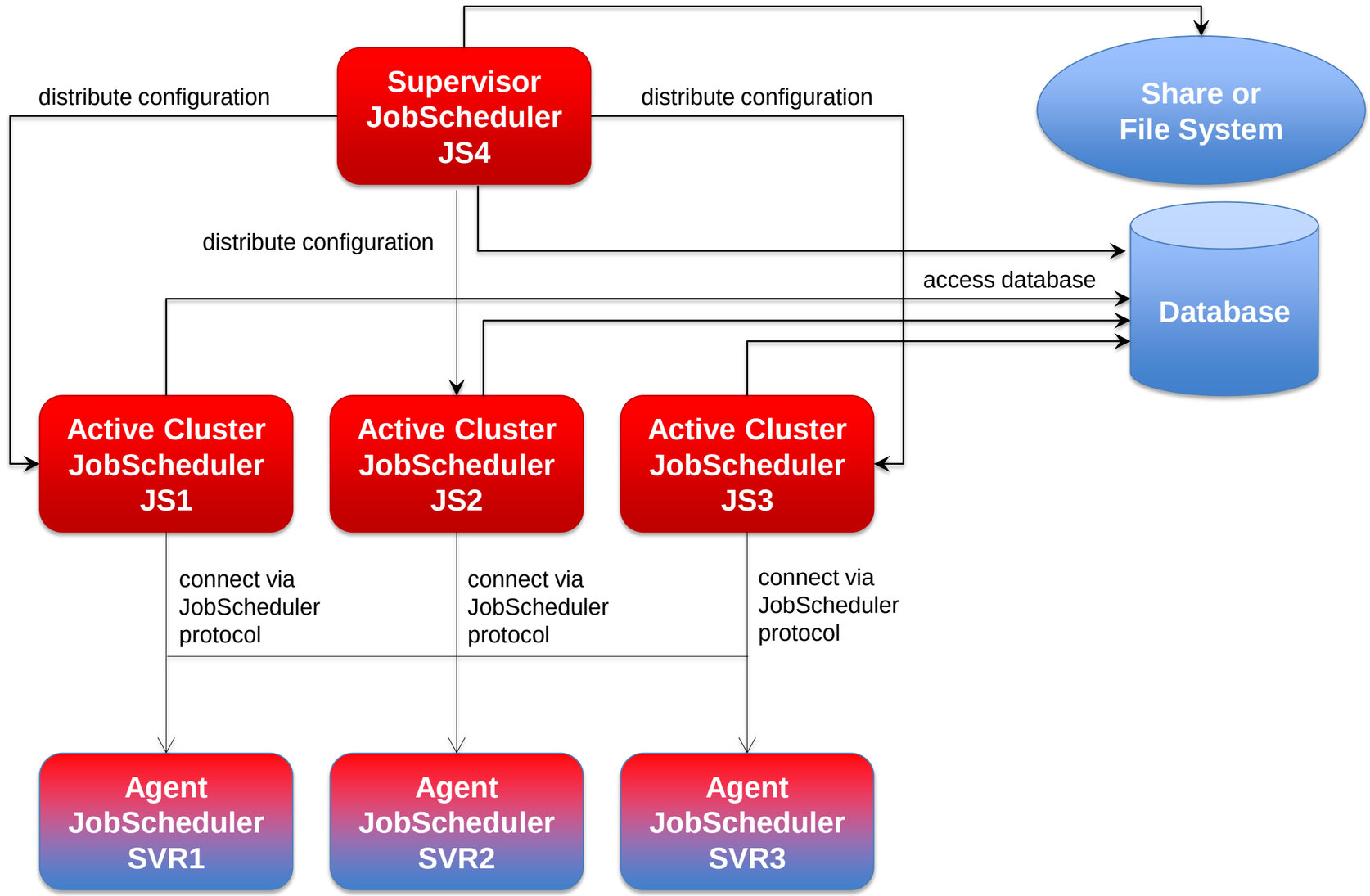
Architecture Decision Templates: Supervisor JobScheduler

Master/Agent Active Cluster

- JobScheduler Cluster members use the same database
- JobScheduler Cluster members share the workload of jobs
- All Instances operate in active mode
- All Cluster instances use Agents to execute jobs on remote servers

Supervisor JobScheduler

- Distribute configuration to Cluster JobScheduler instances



Architecture: Supervisor for Unclustered JobScheduler

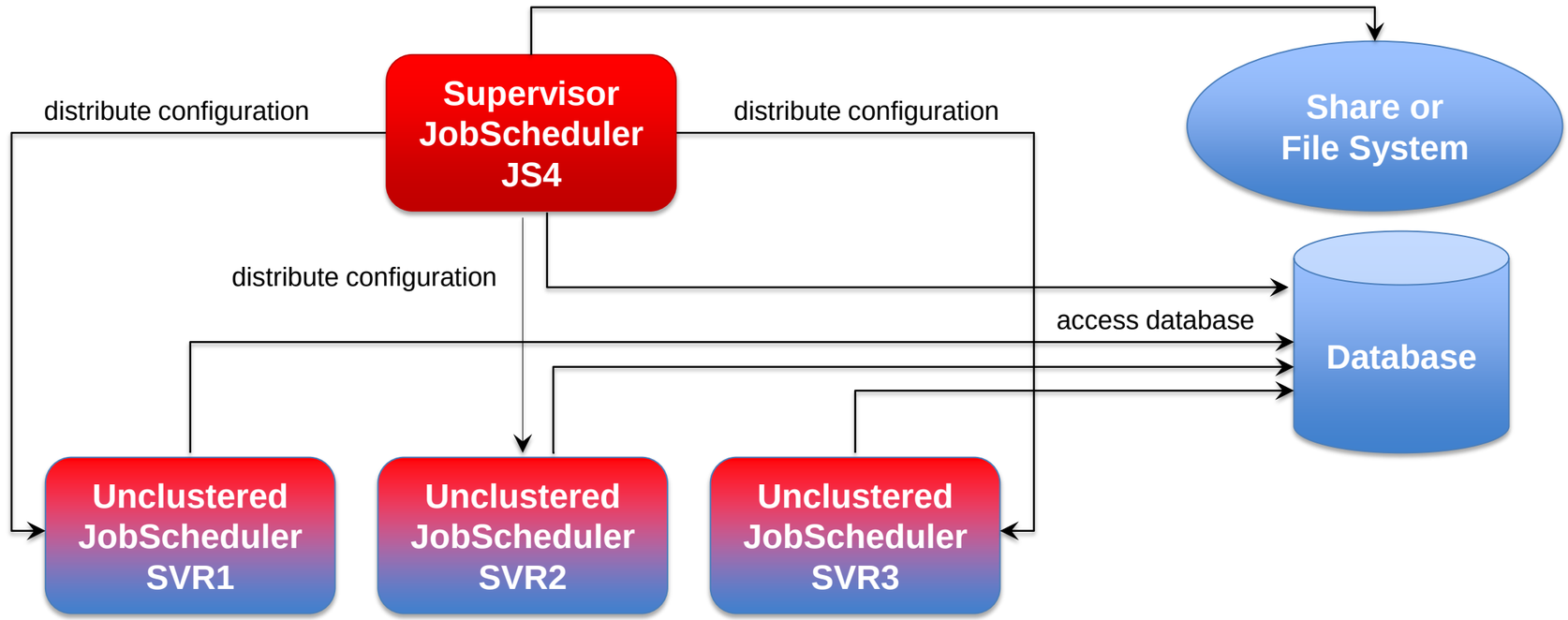
Architecture Decision Templates: Supervisor JobScheduler

Unclustered JobSchedulers

- JobSchedulers use the same database
- JobSchedulers operate independently from each other
- All Instances operate in active mode

Supervisor JobScheduler

- Distribute configuration to JobScheduler instances



Questions?

Comments?

Feedback?

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