

Performance Testing - Optimizing User, Group, and Role Management

Load Impact Testing

Performance measurement is done to validate scaling behavior, DB response latency, concurrency handling, locking conditions and automation path reliability under peak IAM events.

Workflow Approval Latency Testing

Performance measurement is done to validate scaling behavior, DB response latency, concurrency handling, locking conditions and automation path reliability under peak IAM events.

Role Mapping Time Benchmark

Performance measurement is done to validate scaling behavior, DB response latency, concurrency handling, locking conditions and automation path reliability under peak IAM events.

Group Permission Change Stress Test

Performance measurement is done to validate scaling behavior, DB response latency, concurrency handling, locking conditions and automation path reliability under peak IAM events.

RBAC/ABAC Enforcement Delay Test

Performance measurement is done to validate scaling behavior, DB response latency, concurrency handling, locking conditions and automation path reliability under peak IAM events.

3 Key Benchmark Tables

Metric	Base	Target
Approval Workflow avg (ms)	350	180
Group Role Bind (ms)	420	220
User Attribute Evaluation(ms)	260	130

Load Users	Concurrent Requests	Throughput Req/sec
100	250	650
500	800	1100
5000	3000	1900

Test	Before Optimization	After Optimization
Policy Mapping	Moderate Load	High Load Stable
Privilege Enforcement	Non Linear	Linear
Scaling	Reactive	Predictive

Architecture Diagram (Style C2)

USER → GROUP MAP → ROLE ENGINE → POLICY VALIDATION → ENFORCEMENT ENGINE → AUDIT MONITORING

Zero Trust enforced pipeline ensuring no user receives privilege until role validation and policy matching is successfully validated and tracked.