

Issue / Symptom	Possible Cause	Quick Fix / Resolution
Instance not showing as managed	IAM role missing SSM Agent stopped/not installed IMDS disabled Network blocked	Attach role with AmazonSSMManagedInstanceCore Install/start/restart agent (systemctl restart amazon-ssm-agent or snap equivalent) Enable Instance Metadata Service (IMDS) Add NAT Gateway or VPC endpoints for SSM
SSM Agent running but offline	No network to SSM endpoints IAM role has insufficient permissions	Check VPC NAT or VPC endpoints Attach proper IAM policies (SSM + CloudWatch)
"Insufficient permissions" error	Missing CloudWatch permissions	Attach CloudWatchAgentServerPolicy
Session Manager connection fails	User IAM policy missing ssm:StartSession Session Manager not enabled/logged	Add necessary SSM permissions to user Enable session logging
CloudWatch logs/metrics missing	CloudWatch Agent not started Missing CloudWatch permissions	Start/restart CloudWatch Agent Attach CloudWatchAgentServerPolicy
IMDSv2 "Unauthorized" or timeout	IMDSv2 enforced but old agent IMDS disabled	Update SSM Agent Enable IMDS
Run Command fails	Instance offline IAM role missing Run Command permissions Incorrect SSM document	Verify instance status in Systems Manager Add necessary policies (e.g. AmazonSSMFullAccess or custom) Use correct Run Command document
Agent removed after reboot	Agent service not enabled	Enable agent service (systemctl enable ...)