

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