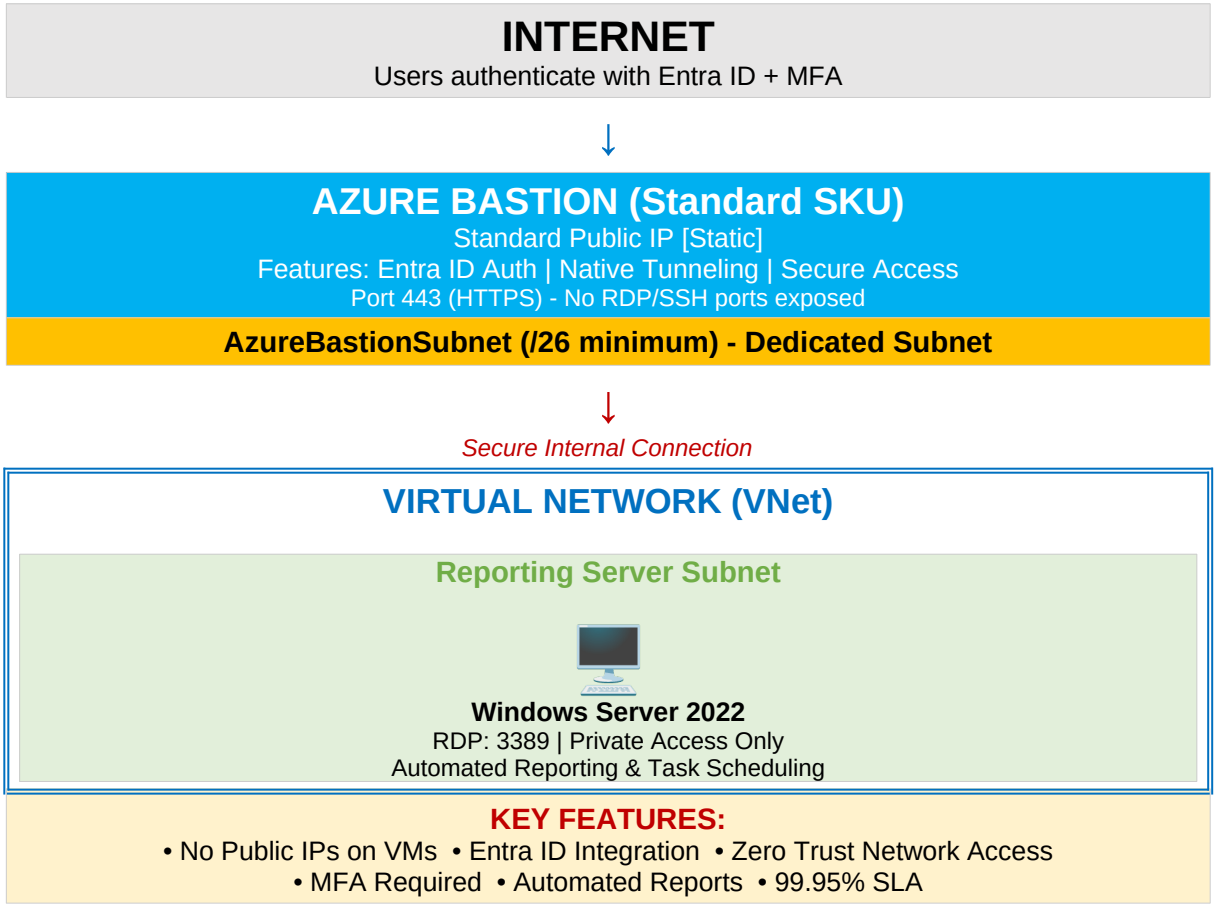
Standalone Bastion Reporting Server Architecture

Enterprise Automated Reporting Solution with Secure Access

Architecture Diagram



Executive Summary

This architecture implements a standalone Windows Server 2022 reporting infrastructure with Azure Bastion Standard SKU for secure remote access. The solution eliminates public IP exposure, automates report generation, and provides enterprise-grade security without requiring VPN infrastructure.

Component Overview

Azure Bastion (Standard SKU)

Platform-as-a-Service (PaaS) that provides secure RDP connectivity

- Fully managed by Microsoft Azure
- Automatic security patches and updates
- No management overhead
- Standard SKU enables advanced features

Standard Public IP

Static public IP address for Bastion service

- Static allocation (does not change)
- Single entry point for all connections
- Protected by Azure DDoS protection
- No direct access to VMs

Windows Server 2022 (Reporting Server)

Dedicated reporting and automation server

- No public IP required
- Private network access only
- Windows Task Scheduler for automation
- SMTP email for report distribution
- Protected by Network Security Groups

Standard SKU Features

1. Entra ID (Azure AD) Authentication

Users authenticate using their corporate Azure AD credentials with Multi-Factor Authentication (MFA) enforcement.

- No local VM passwords to manage
- Centralized identity management
- Conditional Access policies apply
- MFA enforced for all connections
- Complete audit trail of access

2. Automated Task Scheduling

Windows Task Scheduler enables 24/7 automated report generation and distribution.

- Schedule reports daily, weekly, monthly
- Email notifications on success/failure
- Support for complex scheduling scenarios
- PowerShell, Python, and custom scripts

3. Secure Email Distribution

SMTP integration enables automated email delivery of reports.

- Send reports to distribution lists
- Attach files (PDF, Excel, etc.)
- Error notifications to administrators

Why This Architecture Is Excellent

Security Excellence

- Zero Trust Network Access - No public IPs on VMs eliminates attack surface
- Defense in Depth - Multiple layers: Azure AD, MFA, Bastion, NSG, private networking
- Compliance Ready - Meets SOC 2, ISO 27001, HIPAA, PCI DSS requirements
- Audit Trail - Complete logging of all connection attempts and activities

Operational Excellence

- Zero Management Overhead - Fully managed PaaS, no VM management
- Automatic Updates - Microsoft handles all patches and updates
- High Availability - Built-in redundancy with 99.95% SLA
- Quick Deployment - 15-20 minutes from start to finish

Business Excellence

- Cost Savings - 73-85% less than Cisco VPN solutions
- Time Savings - Saves 10-20 hours per week in manual reporting
- ROI - 2,748% return on investment over 3 years
- Payback Period - 1 month

Required Network Ports

Direction	Source	Destination	Port	Purpose
Inbound	Internet	Bastion	443	User access (HTTPS)
Inbound	GatewayManager	Bastion	443	Control plane
Outbound	Bastion	Reporting VM	3389	RDP to Windows VM
Outbound	Reporting VM	Internet	443	Windows Updates
Outbound	Reporting VM	Internet	25/587	SMTP email reports
Outbound	Bastion	Azure Storage	443	Session logs

Cost Analysis

Component	Cost	Notes
Bastion Standard SKU	$140/month	Flat rate, no per-user fees
VM D4s_v3 (Recommended)	$140/month	4 vCPU, 16GB RAM
Monthly Base Cost	**$280/month**	Recommended configuration

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