RSA multi-factor authentication with PSM — an overview

June 19, 2018

Abstract
An overview about the benefits of using RSA multi-factor authentication with Balabit's Privileged Session Management (PSM)

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1. Introduction

This document describes how you can use the services of multi-factor authentication provider *RSA* to authenticate the sessions of your privileged users with Balabit's Privileged Session Management (PSM).

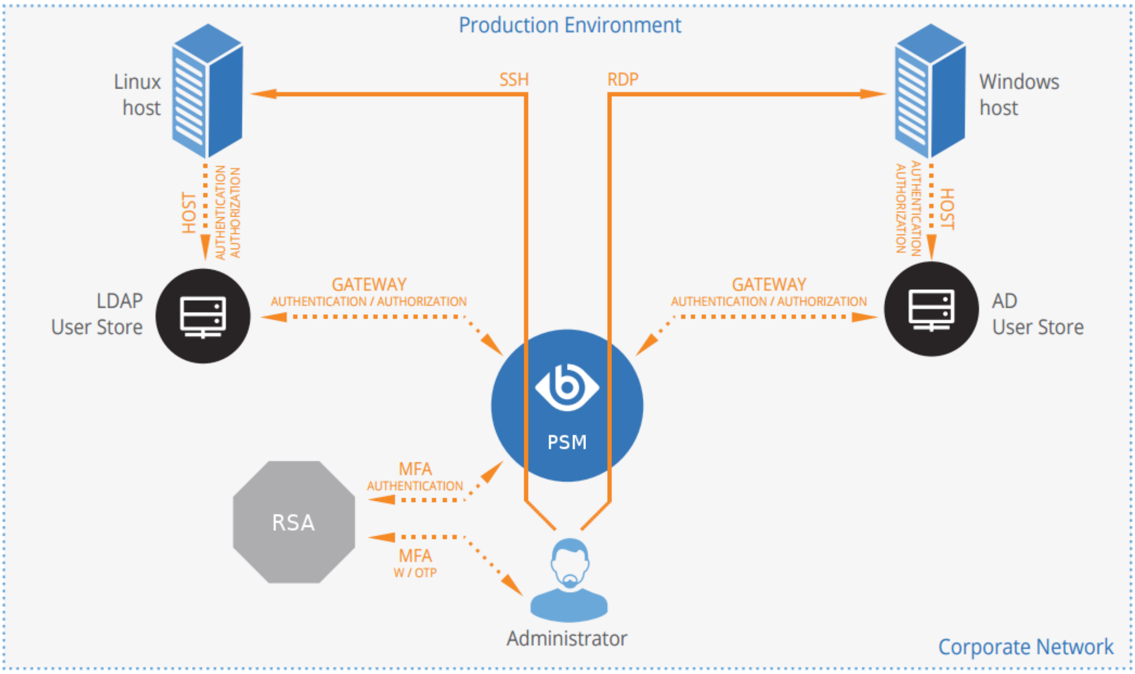
Balabit's Privileged Session Management: Balabit's Privileged Session Management (PSM) controls privileged access to remote IT systems, records activities in searchable, movie-like audit trails, and prevents malicious actions. PSM is a quickly deployable enterprise device, completely independent from clients and servers — integrating seamlessly into existing networks. It captures the activity data necessary for user profiling and enables full user session drill down for forensic investigations.

RSA Adaptive Multi-factor Authentication:

To support multi-factor authentication, PSM integrates with the identity management service RSA. This enables you to leverage an additional out-of-band factor (typically through the user's registered smartphone) when authenticating the user. The additional factor is processed in-line with the connection, so users do not have to switch to an external application to process the additional factor. This results in an efficient user experience that is readily accepted by the users.

The Balabit's Privileged Session Management can interact with your RSA account and can automatically request multi-factor authentication for your privileged users who are accessing the servers and services protected by PSM.

Figure 1. How PSM and RSA work together



Solution benefits

Using PSM together with RSA provides the following benefits:

- Easy-to-use multi-factor authentication to secure your privileged users who access your business-critical servers. The enforcement of a second-factor authentication and the availability of session recordings make the access of high-risk users more secure.
- Out-of-band authentication to protect against privileged identity theft.
- Logs and audits administrative network traffic.
- Integrates with existing LDAP user directory.
- Easy and fast deployment and implementation: a network-level solution that does not require installing agents on clients or servers.
- Can forward user logs into Splunk for long-term storage and analysis.
- Supports SSH and RDP protocols to access both Linux and Windows servers, without disrupting the daily workflow of your system administrators and other privileged users.
- Supports strong authentication methods, including SSH keys and certificates.

Meet compliance requirements

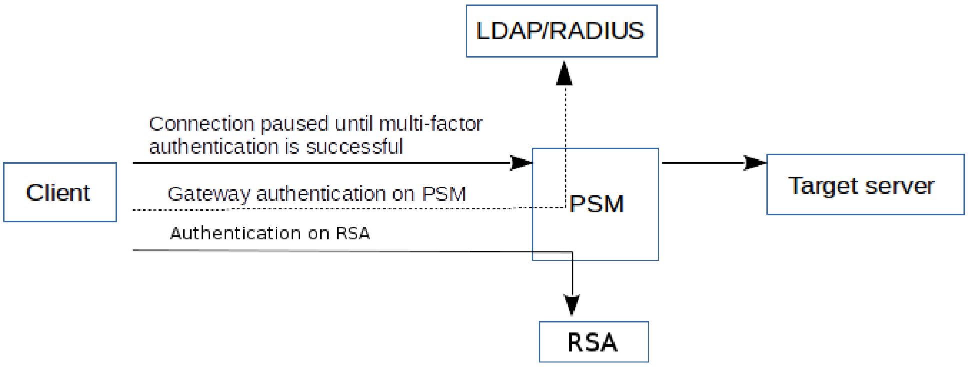
ISO 27001, ISO 27018, SOC 2, and other regulations and industry standards include authentication-related requirements, for example, multi-factor authentication (MFA) for accessing production systems, and the logging of all administrative sessions. In addition to other requirements, using PSM and RSA helps you comply with the following requirements:

- PCI DSS 8.3: Secure all individual non-console administrative access and all access to the cardholder data environment (CDE) using multi-factor authentication.
- PART 500.12 Multi-Factor Authentication: Covered entities are required to apply multi-factor authentication for:
  - Each individual accessing the covered entity’s internal systems.
  - Authorized access to database servers that allow access to nonpublic information.
  - Third parties accessing nonpublic information.
- NIST 800-53 IA-2, Identification and Authentication, network access to privileged accounts: The information system implements multi-factor authentication for network access to privileged accounts

PSM acts as a central authentication gateway, enforcing strong authentication before users access sensitive IT assets. PSM can integrate with remote user directories to resolve the group memberships of users who access nonpublic information. Credentials for accessing information systems can be retrieved transparently from PSM's local credential store or a third-party password management system. This method protects the confidentiality of passwords as users can never access them. When used together with RSA (or another multi-factor authentication provider), PSM directs all connections to the authentication tool, and upon successful authentication, it permits the user to access the information system.

2. Procedure – How PSM and RSA MFA work together

Figure 2. How PSM and RSA work together


LDAP/RADIUS
Connection paused until multi-factor authentication is successful
Client
Gateway authentication on PSM
Authentication on RSA
PSM
Target server
RSA

Step 1. A user attempts to log in to a protected server.

Step 2. **Gateway authentication on PSM.**
PSM receives the connection request and authenticates the user. PSM can authenticate the user to a number of external user directories, for example, LDAP, Microsoft Active Directory, or RADIUS. This authentication is the first factor.

Step 3. **Authentication using RSA SecurID Access.**
If gateway authentication is successful, PSM connects the RSA Authentication Manager. Then PSM requests the second authentication factor from the user and sends it to the RSA server for verification.

Step 4. If multi-factor authentication is successful, the user can start working, while PSM records the user's activities. (Optionally, PSM can retrieve credentials from a local or external credential store or password vault, and perform authentication on the server with credentials that are not known to the user.)

3. Technical requirements

In order to successfully connect PSM with RSA, you need the following components.

In RSA:

- An RSA Authentication Manager deployed.
- RADIUS access parameters, for example, host, port, and an RSA shared secret. You will need it to configure the PSM plugin.
- Your users must be enrolled in RSA Authentication Manager.
- The users must be able to perform the authentication required for the fasctor (for example, possess the required RSA SecurID Hardware Token).

In PSM:

- A Balabit's Privileged Session Management appliance (virtual or physical), at least version 5 F1.
- A copy of the PSM RSA plugin. This plugin is an Authentication and Authorization (AA) plugin customized to work with the RSA multi-factor authentication service.
- PSM must be able to access the RADIUS port of the RSA Authentication Manager.
- PSM supports Authentication and Authorization plugins in the RDP, SSH, and Telnet protocols.
- In RDP, using an **AA plugin** together with Network Level Authentication in a Connection Policy has the same limitations as using Network Level Authentication without domain membership. For details, see *Procedure 10.3.3, Network Level Authentication without domain membership* in *The Balabit's Privileged Session Management 5 F6 Administrator Guide*.
- In RDP, using an **AA plugin** requires TLS-encrypted RDP connections. For details, see *Procedure 10.5, Enabling TLS-encryption for RDP connections* in *The Balabit's Privileged Session Management 5 F6 Administrator Guide*.

Availability and support of the plugin

The PSM RSA plugin is available as-is, free of charge to every PSM customer from the *Appstore*. In case you need any customizations or additional features, *contact professionalservices@balabit.com*.

You can use the plugin on PSM 5 F5 and later. If you need to use the plugin on PSM 5 LTS, *contact professionalservices@balabit.com*.

4. Learn more

To find out more about PSM, visit the *One Identity page*.

For a detailed tutorial about how to connect your RSA account with PSM, see *Tutorial — How to use RSA multi-factor authentication with PSM*.

If you need help in connecting your RSA account with Balabit's Privileged Session Management, *contact our Sales Team* or *contact professionalservices@balabit.com*.

4.1. About One Identity

One Identity LLC, is a leading provider of Privileged Access Management (PAM) and Log Management solutions. Founded in 2000, One Identity has a proven track record of helping businesses reduce the risk of data breaches associated with privileged accounts. With offices in the United States and Europe, and a global client list that includes 25 Fortune 100 companies, One Identity and its network of reseller partners serves more than 1,000,000 corporate users worldwide.

For more information, visit *www.balabit.com*, read the One Identity blog, or follow us on Twitter via @balabit, LinkedIn or Facebook.

To learn more about commercial and open source One Identity products, request an evaluation version, or find a reseller, visit the following links:

- *Privileged Session Management homepage*
- *One Identity Documentation page*
- To request an evaluation version, *contact our Sales Team*

About One Identity

One Identity helps organizations optimize identity and access management (IAM). Our combination of offerings, including a portfolio of identity governance, access management, privileged management and identity as a service solutions, enables organizations to achieve their full potential — unimpeded by security, yet safeguarded against threats. For more information, visit *oneidentity.com*.

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