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RADIUS is so 90s. But it rocks!

Why RADIUSaaS?

## Accelerate your cloud journey with cloud-based RADIUS

You are looking…

✓ for a trusted, secure and highly-available cloud-based RADIUS service

✓ to get rid of your on-premise AAA servers

✓ for a single service for a multi-vendor network

✓ to get rid of pre-shared keys (PSK)

✓ to consolidate your AAA infrastructure across different sites

✓ for automated patching, updating, and scaling
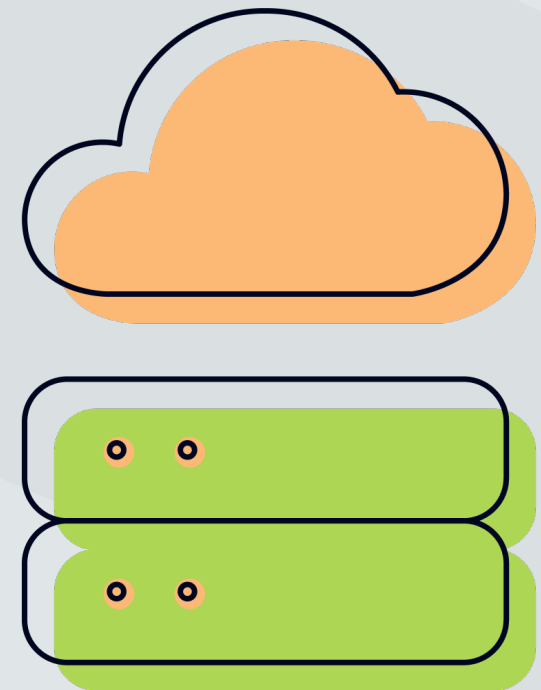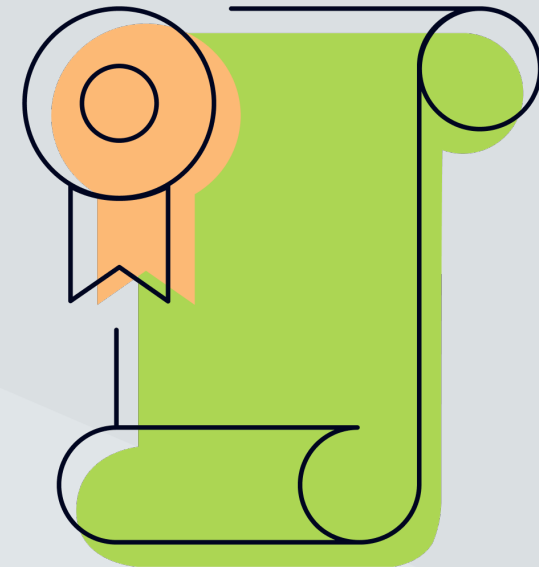
Authentication Options

- Main use-case: Certificate based authentication (CBA)

- Special use-cases: Credentials based authentication (username & password)
  - Special devices
  - BYOD
  - Guests
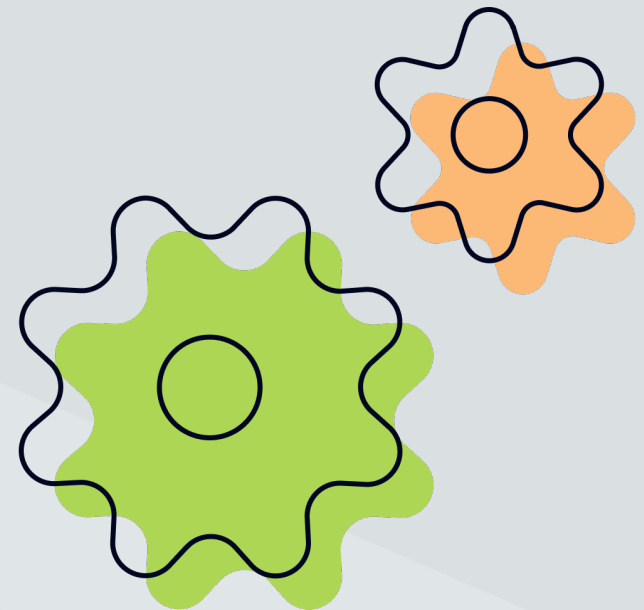
Certificate-based Authentication (CBA)

Never trust – always verify

- Authenticating with certificates means that **no secret credentials** are ever transmitted - passwords cannot be stolen because they are not used

- X.509 certificates are a well established standard with unparalleled compatibility and adoption

- Managing certificates with popular MDM solutions is easy!
  (Auto-enrollment | Auto-renewal | Auto-revocation)

- Ensure only trusted devices or users receive a certificate

- CBA is phishing-resistant

- Revoke certificates to block access in real-time

Username-password Authentication
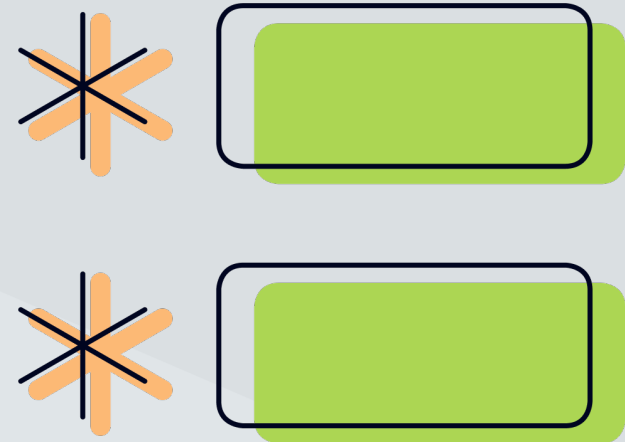
Only use when necessary!

- **Compatibility**

Manage username/password accounts locally[1] in scenarios where certificates cannot/are impractical to be used for authentication:

- BYOD

- Legacy & IoT devices (printers, room systems, …)

- **Guest Access for your Network**

- Empower your employees to manage guests using self service

- Your employees can provide, renew or revoke access

[1]Does not support integration with Cloud Identity Providers such as Entra ID.
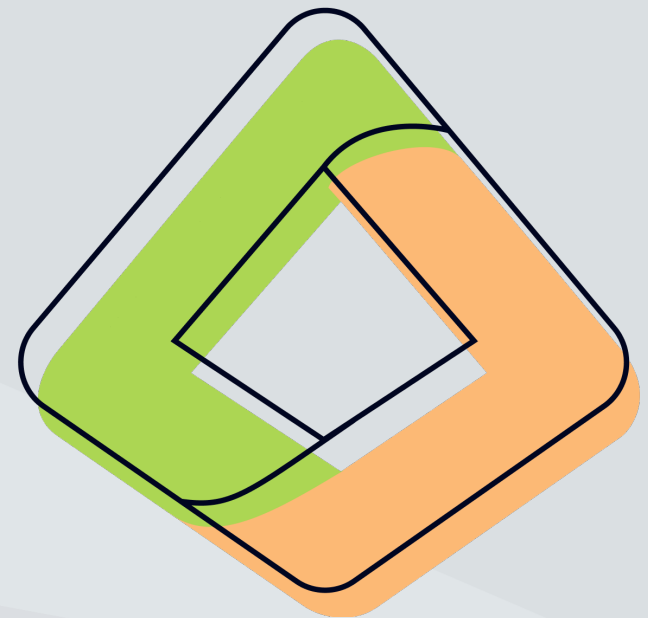
No Entra credentials?

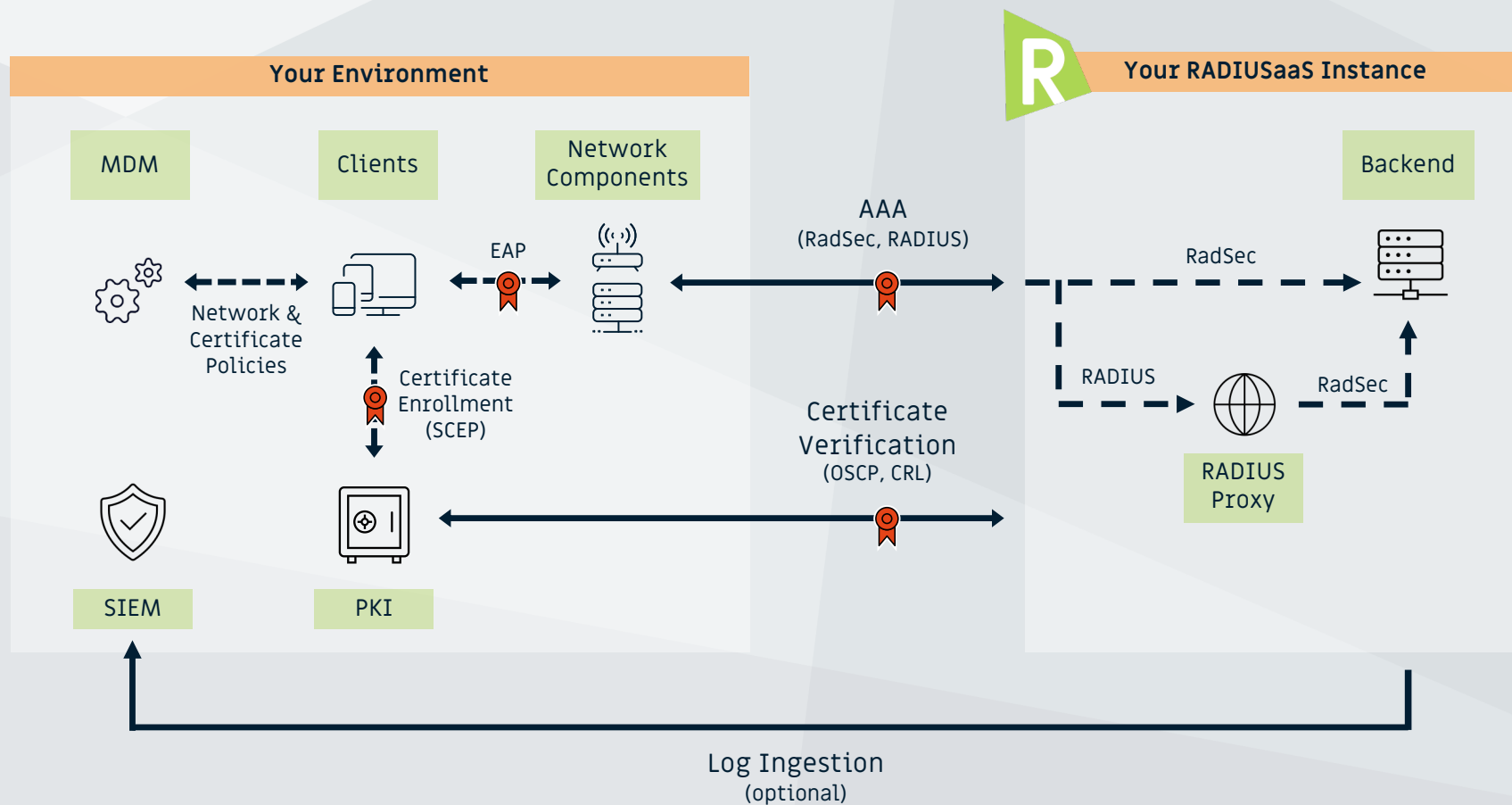More precise: **Why not using Entra credentials (username & password) for network authentication?**

- You want your users to use the Entra credentials as less as possible (Passwordless)
- Inconvenience
- Security
- Credentials would have to be transported within the RADIUS protocol

P.S.: We are using Entra for the authentication to the RADIUS web-portal. But from a technology & security perspective, this is a totally different approach!

Architecture
Overview

Your Environment

MDM

Clients

Network Components

Your RADIUSaaS Instance

Backend

EAP

AAA
(RadSec, RADIUS)

RadSec

Network & Certificate Policies

RADIUS

RadSec

Certificate Enrollment (SCEP)

Certificate Verification (OSCP, CRL)

RADIUS Proxy

SIEM

PKI

Log Ingestion
(optional)

Architecture & Administration

High-level Design

- Hyperscaler **independent**, **highly-available** Kubernetes-based **zero-trust** service

- Options for geographic and Hyperscaler redundancy
  Active-Active Configuration

- Multiple hosting locations available around the world

- Scalability 50 to >100 k users

Administration

- Admin logon via Entra ID SSO
  Multiple roles available
  Conditional Access policies enforced

- No additional customer tenant permissions required

- Automatic patches and updates

RADIUS vs. RadSec

Protocols at a glance

	RADIUS	RadSec
Transport Protocol	UDP	TCP
Authentication & Encryption	RADIUS Shared Secret (symmetric)	mTLS (asymmetric)
Support for EAP	Yes	Yes
Authenticator Compatibility	Supported by all manufacturers	Supported by major manufacturers (incl. Cisco, Meraki, FortiNet, Aruba)

We recommend RadSec, when available!

Vendor, PKI and MDM Interoperability

Does RADIUSaaS fit into my environment?

✓ All relevant AAA protocols supported

(RADIUS | RadSec)

✓ Works with any WAP + Switch vendor

… that supports EAP

✓ Works with VPN Gateways

… that support EAP-TLS-based AAA via RADIUS
(Azure WAN Gateway | Microsoft RRAS | …)

✓ Compatible with popular PKIs

(SCEPman | Intune Cloud PKI | ADCS/NDES | …)

✓ Seamlessly push Wired or WiFi configurations via MDM

(Microsoft Intune | Jamf Pro | Kandji | Mosyle | Google Workspaces)

✓ … to various OS platforms

(Windows | macOS | iOS | iPadOS | Android | ChromeOS)

RADIUSaaS

PKIs

- SCEPman
- Intune Cloud PKI
- Microsoft ADCS/NDES

MDM Systems

jamf

OS Platforms

Networking Equipment

cisco Meraki

JUNIPER NETWORKS

F RTINET

MIKROTIK

aruba
a Hewlett Packard Enterprise company

paloalto NETWORKS

Deployment & Configuration

Configure your cloud RADIUS in no time!

Step 1 – Service Provisioning

- We will deploy your RADIUSaaS instance

Step 2 – Establish Trust

- Define the CA(s) you want to trust for client authentication

Step 3 – Configure your Network Equipment

- Enable 802.1X on your WAPs and switches and point them to your RADIUSaaS instance for AAA

Step 4 – Push Networking Profiles to your Endpoints

- Set up policies in your preferred MDM solution to automatically configure WiFi, LAN or VPN connections
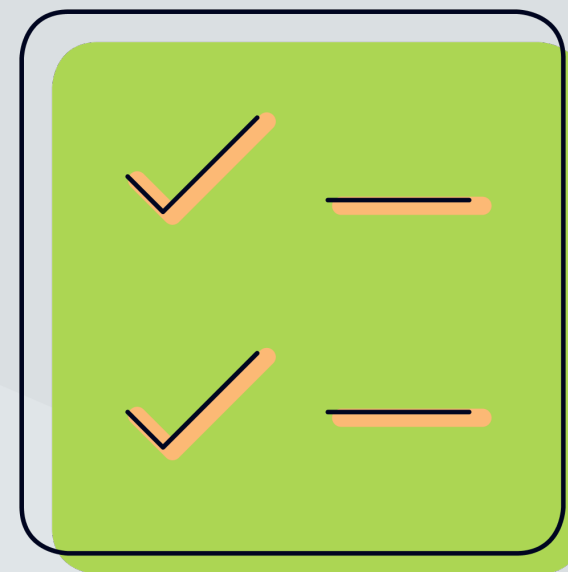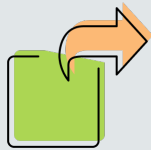
Advanced Features

Unleash the full potential of RADIUSaaS

Insights

Built-in dashboards provide detailed authentication log analysis.

Log Exporter

Export logs to your environment:

- Log Analytics
- Webhook (JSON)
- Microsoft Teams Channel

Rule Engine

Provides you with enhanced controls for access requests:

- Limit access to certain credential types (e.g. certificates) and CAs
- Ensure requests originate from your infrastructure (SSID and MAC filters)
- Implement static or dynamic VLAN steering

Trials

Test RADIUSaaS without strings attached

Contact us for a free trial:

https://www.radius-as-a-service.com/start-now/#try

✔ Full features / no limitations

✔ Up to 50 users and 30 days

✔ Easy conversion to production

Licensing Model
Full flexibility for your scenario

- **Trust-based** licensing model

- User-centric (5 mobile + 5 stationary devices)
  Options: Device-based or hybrid licensing

- Full support and incident response included
  Germany and Australia based

- Discounts for NFPs and charities

- Flexible subscription terms
  1 year | 1 month

- Add-ons
  Additional Service Instances | Additional RADIUS Proxies
  (Geo- and Hyperscaler Redundancy)
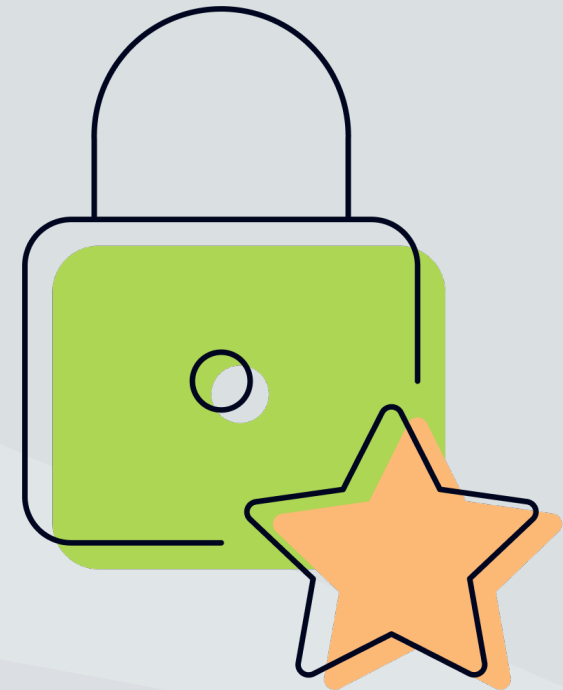
Pricing and where to buy?

Buy on your preferred transaction platform

✔️ Volume Discounts automatically applied

✔️ Minimum number of licenses: 50

Buy RADIUSaaS on ...

Microsoft Azure Marketplace

✔️ Available in > 50 Countries

✔️ Billed against your Azure subscription (Pay-as-you-go, EA, ...)

✔️ Microsoft is likely to be listed in your supplier database

cleverbridge

✔️ Available in 180+ countries

✔️ Flexible and localized payment methods
Invoice (30 days net) | Credit Card PayPal | ACH Credit | ...
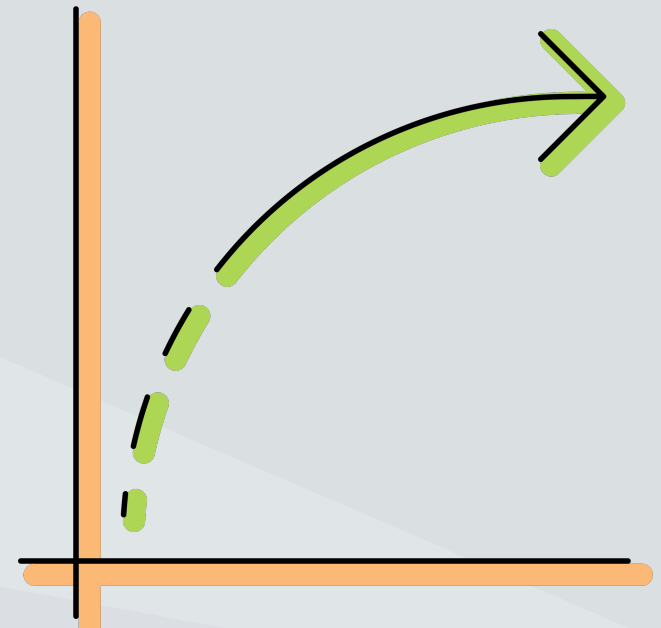
The RADIUSaaS & SCEPman Bundle

Your cloud-based network authentication dream team

- **Seamless integration** between CA and RADIUS **simplifying deployment** and configuration

- **Real-time** revocation via OCSP leveraging **Object-Binding** Technology
  Optionally: Enforce device compliance for network access

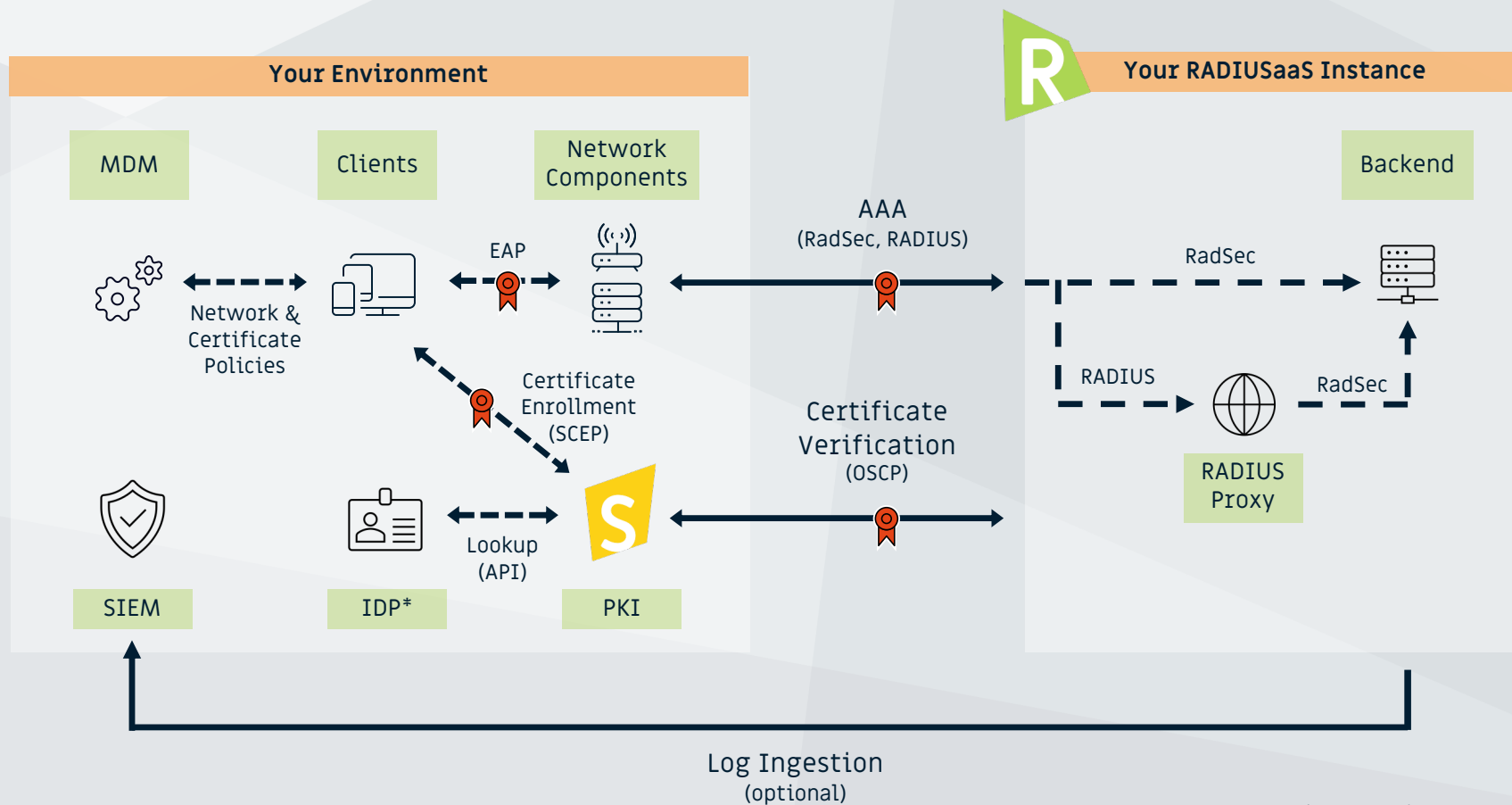- A service in your realm – **No** external **tenant permissions** required

R + S

Get both – save 25%

Microsoft
Azure Marketplace

The RADIUSaaS & SCEPman Bundle

Architecture

Your Environment

MDM

Clients

Network Components

EAP

Network & Certificate Policies

Certificate Enrollment (SCEP)

SIEM

IDP*

Lookup (API)

PKI

AAA (RadSec, RADIUS)

Certificate Verification (OSCP)

Your RADIUSaaS Instance

Backend

RadSec

RADIUS

RadSec

RADIUS Proxy

Log Ingestion (optional)

* Supported IDPs: Intune, Entra ID, Jamf Pro

RADIUSaaS

www.radius-as-a-service.com

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