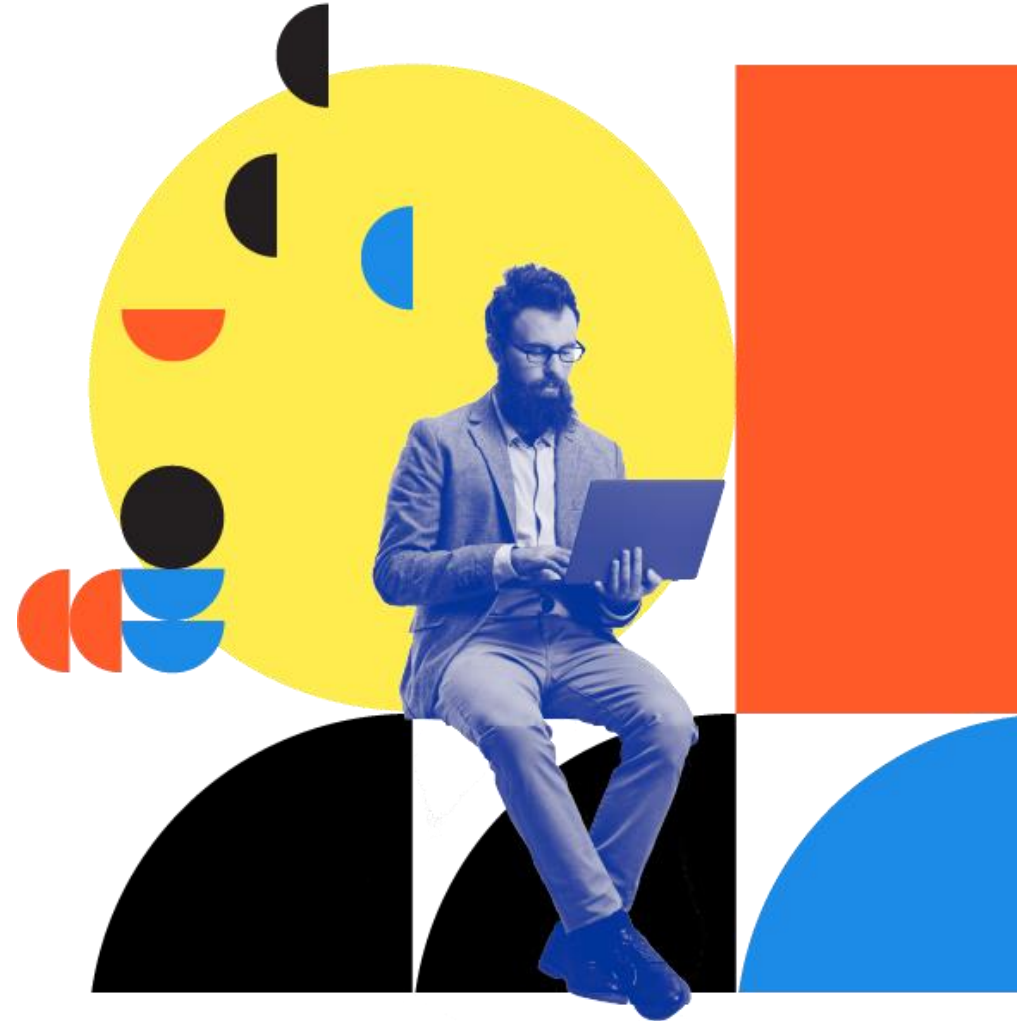# 2024 OneCon IntegraOne

IntegraONE

# Veeam Backup and Replication Security Best Practices

**John Bachert, IntegraOne**

**Eric Dougherty, Veeam**

# Agenda

- **Veeam Backup and Replication Best Practices**

- **Security and Compliance Analyzer**

- **VeeamOne**

- **Demo**

IntegraONE

# Veeam Backup and Replication Best Practices

IntegraONE

# Infrastructure Hardening – Secure by Design



- KISS

- Assess likely targets

- Start with hardened OS images

- Physical backup server outside of virtualized environment

- Veeam Server should not be member of domain

- Grant access/ports as needed (keep it closed and open as required)

- Refer to Veeam Help Center

[Securing Backup Infrastructure – User Guide for Vmware vSphere](#)
[10 tips in hardening your Veeam backup server](#)

# Infrastructure Hardening – Secure by Design

- Remove Unused Components

    - Web browsers, extensions, etc.

    - Apps like Acrobat, Java, etc.

    - VBR Server

        - Remove console

        - Disable vPower NFS if not using Sure Backup, Instant Recovery, Other OS FLR operations

        - Remove Veeam Explorers

IntegraONE

# Infrastructure Hardening – Console Access

- Run from a management server

- Locate in DMZ

- 2 Factor Authentication to system

- NOT on admin desktops

- NOT directly on server

# Infrastructure Hardening – Roles and Users

- Don't use admin access

- Unique Veeam admin accounts per user

- Least privilege access

- Limit access to the management server/VBR console

- 2FA wherever possible

- Account logging and auditing

IntegraONE

# Infrastructure Hardening – Password Management

- Strong Passwords

  - More strict policies than user passwords, shorter expiry times

- Admins: 10+ characters

- 2FA

- Service accounts: 25+ character accounts

  - Use gMSA

- Lockout policy

  - More strict than user accounts

- Consider alerts and alarms for service accounts to keep backups running

IntegraONE

# Infrastructure Hardening – Least Privilege

- Grant only permissions needed for the role

- Separate accounts for backup/restore functions

- Proxies are a target for credential interception

# Infrastructure Hardening – Patching and Updates

- Most issues start with out-of-date systems

- Keep all components current (only as strong as weakest link)

- Use tools you have to test patches (Virtual Sandbox)

- Use strongest encryption possible for SSH

- Secure keys, be sure they cannot be uncovered by 3rd party

IntegraONE

# Infrastructure Hardening – Secure Backup Repository

- Repository Security Measures

  - Use secure storage (e.g., hardened repositories)

  - Encrypt backups both in transit and at rest

- Immutability Settings

  - Configure immutable backups to prevent tampering

IntegraONE

# Security and Compliance Analyzer

IntegraONE

# Veeam Security and Compliance Analyzer

- A built-in tool to ensure that your backup server configuration follows security best practices for Veeam backup infrastructure components.

- Automatically evaluates backup configurations and security settings to identify potential vulnerabilities.

- Provides actionable recommendations to enhance security posture and mitigate risks.
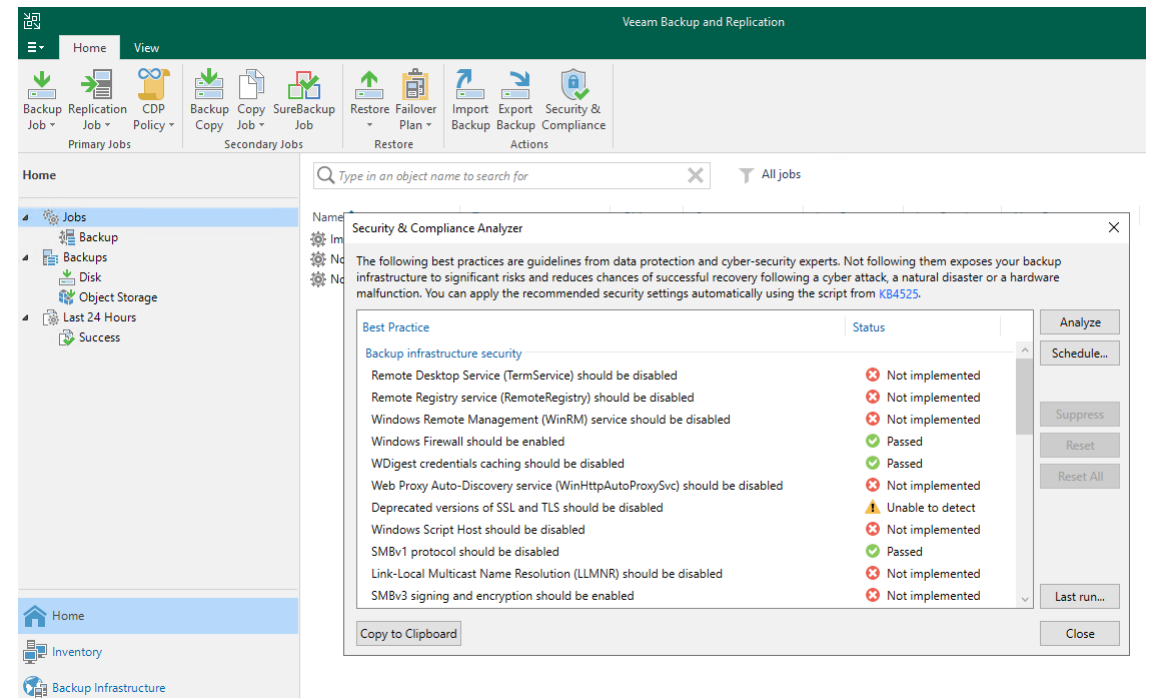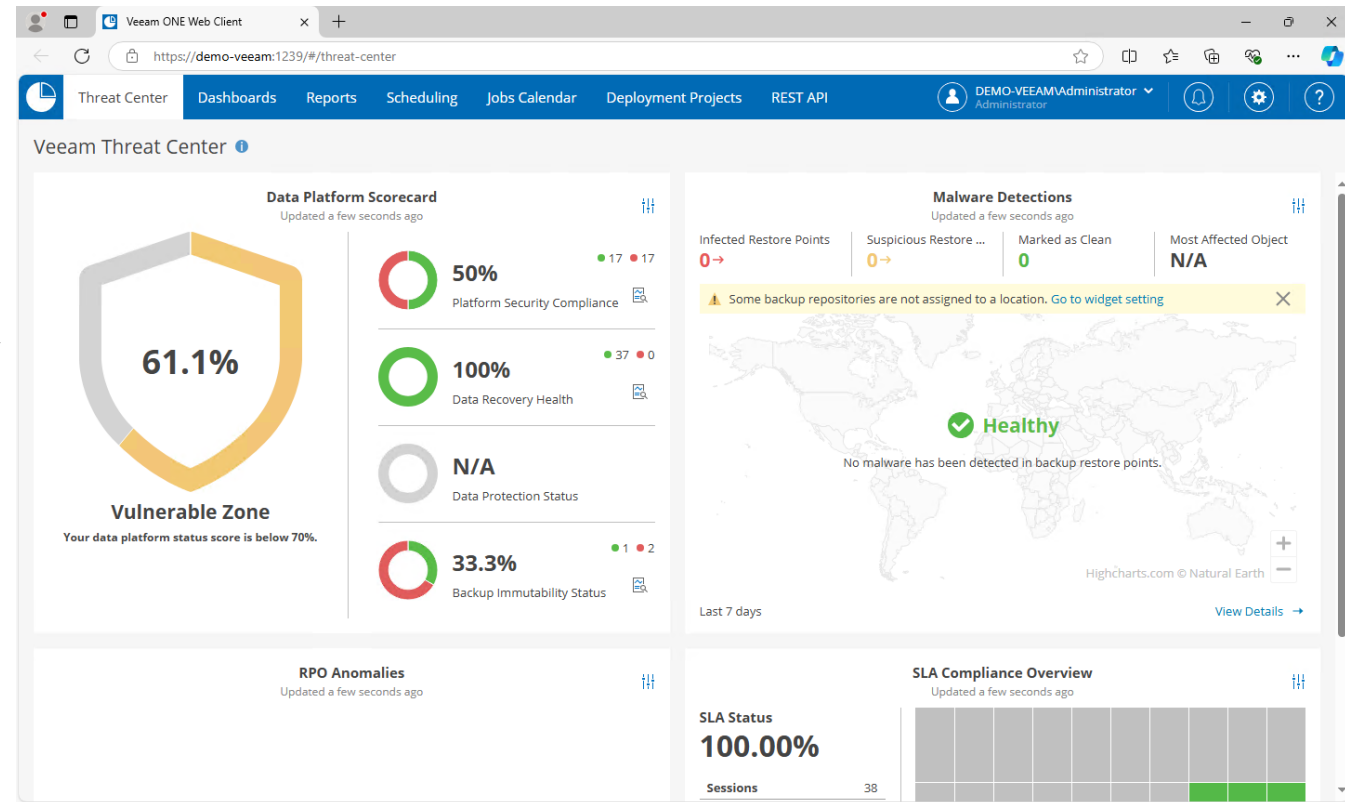
# VeeamOne

# VeeamOne

- A comprehensive monitoring and analytics solution for Veeam Backup & Replication environments.

- Provides real-time visibility into backup jobs, virtual environments, and storage resources.

- Tracks performance metrics to ensure backup jobs are running efficiently and within SLAs.

- Generates detailed reports on backup health, job statuses, and resource utilization.

- Offers insights into current and future storage needs, helping to avoid potential resource bottlenecks.
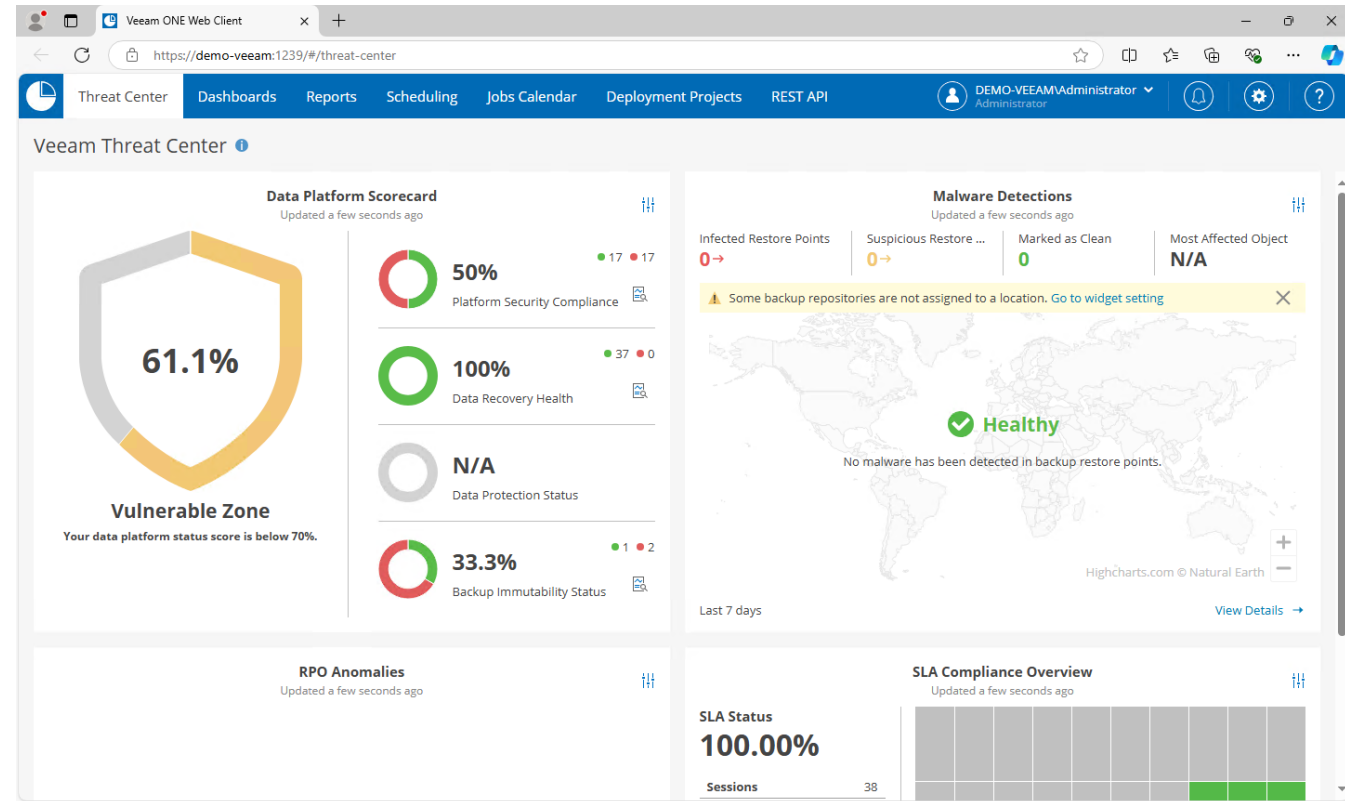
# VeeamOne

- Configurable alerts for job failures, performance issues, and capacity thresholds to ensure timely responses.

- Works seamlessly with Veeam Backup & Replication for a unified management experience.

- Intuitive dashboards provide at-a-glance views of key metrics and alerts for easy monitoring.

- Helps organizations track compliance with data protection regulations through customizable reports.

- Enables automated reporting and alerting to streamline operations and improve response times.

# Demos

IntegraONE

# Demos

- **Security and Compliance Analyzer**

- **VeeamOne**

- **Repository Security (Immutable)**

- **2FA**

# Questions?

IntegraONE