Formos Consulting



Cybersecurity Considerations in Third Party Risk Management

TPR Definition & Scope

- Third-party risk is the potential for loss, disruption, or harm to an organization that arises from its relationships with external entities such as vendors, suppliers, contractors, service providers, or business partners.
- TPR frequency arises from outsourced services or an outsourced function.
- TPR originates from providing access systems or data, or from the responsibility to deliver goods or services.





Why Should We Care About Third-Party Risk Management?

Reasons to Care About TPRM

- 30% of Data Breaches originate from third-party vendors¹
- Effective TPRM is necessary to meet regulatory requirements (HIPAA, GLBA, PCI DSS, etc.)
- Effective TPRM is necessary to meet contractual requirements with vendors and customers



Oldies, But (Not So) Goodies







Target Breach (2013)

- Breach occurred through Target's Third-Party HVAC Company
- Obtained HVAC employee's credentials to Target's Web Portal
- Used a vulnerability in Web Portal to elevate admin privileges
- Installed Malware on Point-of-Sale (POS) terminals
- 40 million payment cards were stolen
- Nearly \$300 million in estimated losses





Target: Lessons Learned

- Even the "lowest risk" third-parties carry risk
- Due diligence is required



SolarWinds (2020)

- Attacker injected malicious code into Orion Platform, the software used by customers to monitor their IT devices
- Malicious code was deployed to thousands of customers as part of routine update.
- When customers installed the update, it activated a backdoor in their system.





TPRM Frameworks & Guidance

Relevant TPRM Frameworks & Guidance

- NIST CSF 2.0
- ISO 27001:2022
- COSO
- IIA's Third-Party Topical Guidance



NIST CSF 2.0

- Released February 2024 (first update since 2014)
- Added the "Govern" function
 - Blueprint for TPRM governance
- Can map organization's TPRM program to the CSF 2.0 categories



IIA's Third-Party Topical Requirement

- Effective September 2026
- Aligned with frameworks such as ISO 27001, GDPR and HIPAA
- Outlines TPRM Lifecycle
- Divided into three sections:
 - Governance
 - Risk Management
 - Controls



International Professional Practices Framework® (IPPF)





TPRM Software & Tools

TPRM Software/Tools

- Variety of options for managing third-parties:
 - Dedicated TPRM Solution
 - IT Service Management (ITSM) / Ticketing System
 - Excel Spreadsheets / File Shares
- The best choice will be dependent on the needs of your organization based on the number of total third parties, the risk they pose, and other critical factors.



Dedicated TPRM System

- Can manage the entire vendor lifecycle (vetting, RFP/screening, onboarding, ongoing monitoring, renewal/termination, etc.)
- Often has automated functionality, saving manual efforts
- Comprehensive reporting abilities
 - Dashboards
 - Detailed reports
- Expensive



IT Service Management System

- Might already have the platform in place, saving time and money to implement
- Can build workflows and approvals into the platform
- Not built specifically for TPRM, so will have limitations around dashboards, reporting, etc.



Spreadsheets / File Shares

Tracking Vendor(s) and Related Information (accounts, system accounts, APIs, etc) via spreadsheet:

- Free!
- Ideal for environments without a significant number of unique vendors
- Limited functionality and reporting



Relevant InfoSec Tools

InfoSec Solution	Vendor Example	Role in TPRM
Identity & Access Management (IAM)	Okta, CyberArk, Microsoft Entra ID	Monitor TP Users and Activity; ensure full Decommissioning
Privileged Access Management (PAM)	CrowdStrike, CyberArk	Approvals to gain admin access; time limitations to admin access; least privileged enforcement; password rotations, etc.
SIEM / Log Aggregators	Splunk, SumoLogic	Monitor TP user activity
ITSM	ServiceNow	Gain approvals prior to granting admin access
Data Loss Prevention (DLP)	Symantec, ForcePoint	Prevent loss of sensitive data

^{**} need to understand how each solution supports control objectives; consider auditing the scope and configuration of each toolset as well as the result of monitoring activities





TPRM Best Practices

TPRM Best Practices

- TP Governance & Policies
- 2. Stratify TP users based on risk; deploy appropriate controls for each
- 3. Stratify TP organizations based on risk
- 4. Log TP user activity application layer, database layer, OS/command line
- 5. Certify/recertify TP users routinely / forced end-dates for TP users
- 6. Flag TP users separate from EE users consider HR systems or IAM
- 7. Prompt decommissioning process for TP users
- 8. Least privileged access for TP users
- 9. Multifactor Authentication for TP users



TPRM Best Practices

10. TP Contract provisions which address:

- Right to Audit
- Limitations of Liability
- Required Compliance with Standards (with Reporting) SOC, HITRUST, etc.
- Security Questionnaires
- Right to Pen Test (limited restrictions on scope)
- Notification Requirements (employee terms, key position turnover, suspected breach, etc)
- Required Security Protocols, in the event of trusted networks, dedicated connections, regulated data sharing etc.
- Require Security Policies (no offshore for regulated data, use of contractors, written acknowledgement of security policies, etc)





TPRM Lifecycle

Third-Party Lifecycle / Phases

1. SELECTION

2. CONTRACTING

3. ONBOARDING

4. MONITORING

5. OFFBOARDING

Determining the need, plan for use, and **due diligence** for selection.

Drafting, negotiating, approving, and implementing legal agreements.

Contract is signed. Bringing the thirdparty onboard Progress is monitored, and any deviations from the plan are identified and addressed.

Ending contracts and agreements.

Maintaining the exit strategy with a formal exit plan.















Phase 1: Selection

Third-Party Risk Assessment / Due Diligence

- Goal is to evaluate the risks posed to your organization by the third party, both for inherent risk and residual risk.
- Might use an internally developed template/questionnaire to help identify the controls and risks.
- Using the results from the risk assessment and due diligence, we can classify third-parties into Categories/Tiers (e.g. high, medium, low).



Third-Party Risk Assessment: Factors

- Inherent Risk
 - What types of data/access does the third-party have?
 - Criticality/Importance of third-party to our company (dollar amounts, volume of activity, regulatory requirements, etc.)
 - Industry / Nature of business
- Residual Risk / Controls
 - Third-party assurance (SOC reports, PCI, ISO, HIPAA)
 - Business Continuity / Disaster Recovery
 - Financial Stability
 - Recent breaches or known threats?



Third-Party Risk Assessment: Key Points

- The amount of due diligence required is driven by the inherent risk / risk profile of the third party.
- Don't ignore the risk assessment results!
 - Only 29% of companies remediate risks found during the vendor sourcing and selection stage. (Prevalent)
 - There's no point in performing the risk assessments and due diligence if it isn't going to meaningfully impact decision making in the selection process.



SOC Reports

- Are generally helpful in providing <u>some</u> assurance regarding the third party's control environment.
 - Might be limited in its scope
 - Might have testing exceptions / qualified report
 - Quality of report might be lacking.
- Cannot blindly place full reliance on the fact that a third party has a SOC report.





Phase 2: Contracting

Request for Proposal (RFP)

- To weed out potentially problematic/noncompliant third parties, you should include the key provisions to address TPR within the contract requirements in the RFP.
- TPR requested provisions are ideally addressed in selection/ RFP process. Worst case in the contracting process. This true for situations where the TPR arises from a partner relationship or an independent contractor and may not otherwise follow the new vendor scrutiny, including InfoSec evaluation.



Contracting

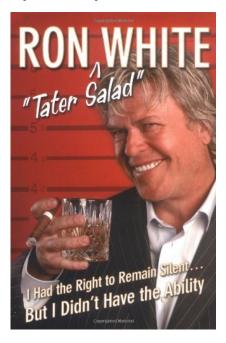
- Make sure to consider including the following in your contracts with third parties:
 - Responsibility for information security and privacy
 - Data ownership
 - Scope / Timing
 - Right to Audit
 - Service Level Agreements (SLAs)
 - Terms upon termination of contract (related to assets/data)



Right to Audit

- Gives you the RIGHT to audit (not required)
- Should be included in the third-party contract/BAA/etc.
- Should clearly define terms:
 - How frequently it can be performed
 - How much advance notice is required
 - Scope of audit/procedures
 - Who will be performing the audit
 - Who's responsible for paying for audit





Right to Audit Examples

- Lack of third-party assurance
- SOC report has a limited scope (e.g. doesn't include business continuity or disaster recovery)
- SOC report had exceptions identified
- Recent breach/incident



What To Do if We Cant Get "Right to Audit"

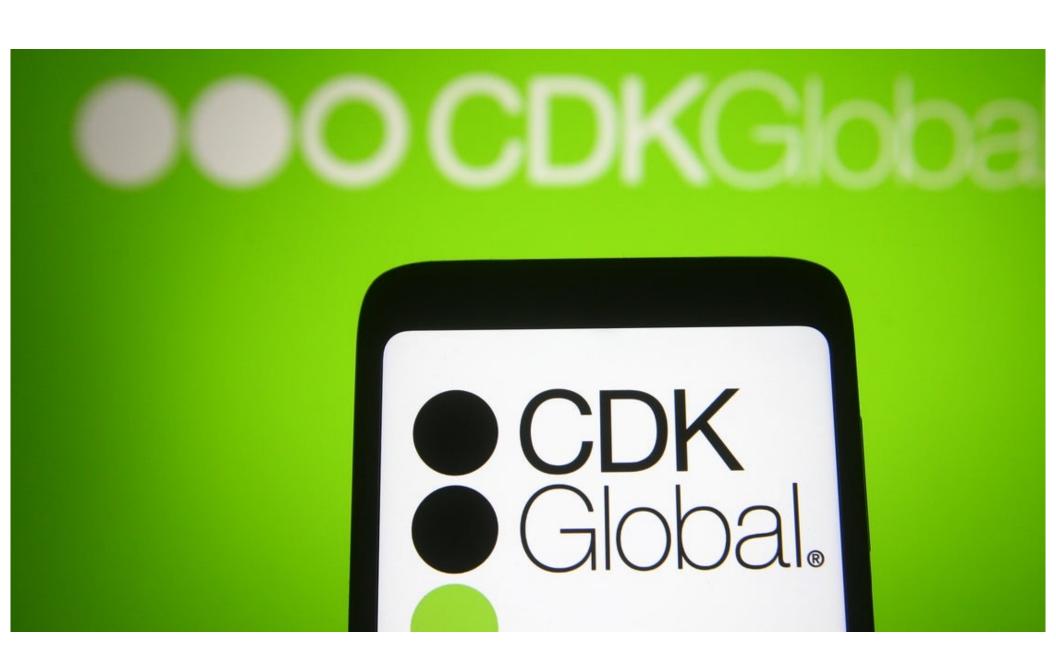
- Evaluate our company's risk appetite
- Evaluate third party's overall risk profile
- In some instances, could be determining factor in the selection of a third party



Service Level Agreement (SLA)

- Sets the expectations/requirements between the customer and third party (service provider)
- Should be as clear/descriptive as possible to avoid potential misinterpretations or disputes
- Should be reviewed periodically as part of the "Monitoring" stage





CDK Global Breach

- Ransomware attack impacting North-American Car Dealerships
- Dealerships had to use pen and paper for weeks
- In addition to systems being down for several weeks, sensitive data was compromised.



CDK Global Lesson: Inadequate MSA/SLA

- Promised "Reasonable Security Measures"
- No explicit service-level guarantees
- Agreement's capped CDK's liability for any claims regardless of cause at the lesser of:
 - -The actual damages incurred by the dealer, or
 - -One month's worth of the average fees paid to CDK
- Explicitly excluded CDK from liability for lost profits or business interruption damages under any circumstances!





Phase 3: Onboarding

Onboarding

The third-party onboarding process needs to address at least the following areas:

- Policies, Training, & Security Awareness
- Access Controls
- Security Controls



Policies, Training, & Security Awareness

- Third-Parties should be treated similarly to employees in the requirement to read/acknowledge company policies as well as complete applicable training
- Where possible, should be required at the third-party employee (individual) level as opposed to global/vendor-wide.



Access Controls

- Least Privilege
 - Access should be granted only to the level its required
 - Often ignored in favor of convenience ("Might need it someday")
- Multi-Factor Authentication (MFA)
 - Should be required for all vendor access
- Set Access Expiration Dates
 - Can always be extended as needed, but force someone to manually review to do so



Access Controls (Continued)

- Access Reviews
 - Company: Company is reviewing to identify inactive third-parties
 - Third-Party: Third-party is reviewing to identify their own employees who no longer required access.
- Terminations
 - Ensure there's a process in place to remove access for third-party employees who are terminated.



Security/Technical Controls

Will vary the most by company and vendor relationship, but the following will generally apply:

- Data Encryption (at rest & in motion)
- TP Pen Tests / Web App Pen Test / Vulnerability Assessments
- Business Continuity & Disaster Recovery





Phase 4: Monitoring

Third-Party Monitoring

- Arguably the most neglected stage of the TPRM Lifecycle
- Only 14% of companies perform true continuous monitoring of their third-parties¹
- Less than half (46%) strongly believe their monitoring program is meeting contractual and regulatory requirements.
- Only 27% of the total risk management effort is allocated to ongoing monitoring over the course of the relationship.²



¹ Risk Management in a Technology-Driven World, Supply Wisdom (2024)

² Need to update this source.

Ongoing Third-Party Monitoring

- Not a "Set it and forget it"
- Must be constantly evaluated to ensure that risks are addressed as changes occur to the third party, applicable regulations, industry conditions, and other relevant factors.



Ongoing Third-Party Monitoring

- Should be looking for the following:
 - Changes in the nature of the relationship/scope
 - Gaps in meeting SLA
 - Gaps identified in assurance efforts (SOC reports, etc.)
 - Acquisitions / Changes to org structure
 - Financial instability
 - Breaches / Information Security issues
 - Industry/Environmental changes



Creative Ongoing Third-Party Monitoring

Monitoring Social Media Accounts



- Monitoring Message Boards
- Monitoring the News
- Looking at Quarterly Filings
- Monitoring/Identifying "Fourth Party" Relationships



Periodic Risk Assessments / Audits

- Need to start with <u>all</u> third-parties and then can exclude/prioritize during the assessment process.
- Can't assume that the risk profile hasn't changed since the last risk assessment or audit has been completed.
- Results will help us identify the areas of highest risk so we can prioritize our time and resources towards them.





Phase 5: Offboarding





Third-Party Offboarding

- Along with Monitoring, arguably the most neglected stage of the TPRM Lifecycle
- Only 14% of companies use true continuous monitoring of their third-parties¹
- Less than half (46%) of companies strongly believe their monitoring program is meeting contractual and regulatory requirements.¹



Offboarding Concerns: Removing Access

- Must remove/disable all accounts timely
 - Individual accounts
 - System/Service accounts
- API Keys & Integrations must be disabled



Offboarding Concerns: Data Retention

- Data must be returned, destroyed, or retained based on:
 - Regulatory requirements
 - Contractual requirements
 - Audit requirements
- Retaining audit evidence isn't generally the focus, but should be considered to ensure it isn't lost.



Thank You!

Questions?

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