STANDARDS PREPARATION CHECKLIST

OT Security Assessment Preparation

Prepare the scope, records and decisions for an OT security review. Covers selected program, architecture, access, change and recovery topics.

Edition 2026-11-03 · Updated November 3, 2026 · miami-computer-forensics.com/guides/ot-security-assessment-checklist/

Baseline: NIST SP 800-82 Rev. 3, final. Updated November 3, 2026.

Use the questions to prepare the review

Start with document review and existing records. Production scanning, intrusive testing, changes and restore exercises each run under their own authorization, engineering review and safety plan.

For this OT security review, distinguish records you can locate from answers awaiting confirmation. Mark an answer verified once someone has checked the record behind it. Assign an owner to unresolved questions and explain exclusions.

Keep network credentials and sensitive OT configuration details in controlled records. Share only the evidence references in an introductory worksheet.

Use these OT security review questions to prepare the discussion. Each question cites the NIST section it comes from, so your team can check the source directly.

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OT-01

Which processes and sites are included?

An OT review starts from an operational boundary as well as an IP range. Include control systems, supporting engineering tools, remote sites and business connections that can affect the process. List any exclusions so everyone reads the review's coverage the same way.

Evidence to gather

Site/process list, system boundaries, accountable process owner and known exclusions.

If something is missing

Have operations and engineering agree on the boundary before collecting technical records.

Topic reference: NIST SP 800-82 Rev. 3; Sections 2.2 and 4.1.1; PDF page 63.

Answer:

Owner, evidence reference and follow up date:

OT-02

Who can approve the work and accept the remaining risk?

A technical contact may not have authority to approve a shutdown, a process change or an exception. Identify operational, engineering and security decision makers and the person who owns unresolved risk.

Evidence to gather

Program charter, responsibility assignments, approval paths and escalation contacts.

If something is missing

Name the decision makers and distinguish access approval from permission to test or change a system.

Topic reference: NIST SP 800-82 Rev. 3; Sections 3.1 and 3.3.1-3.3.2; PDF page 55.

Answer:

Owner, evidence reference and follow up date:

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OT-03

What could a cyber event do to people, the environment or the process?

List the consequences of incorrect control, loss of visibility and loss of availability. A security measure that looks reasonable for office IT can create an unacceptable operating condition in OT.

Evidence to gather

Existing hazard/risk reviews, critical functions, safety constraints and engineering assumptions.

If something is missing

Discuss the consequences with the process and safety owners before selecting assessment methods.

Topic reference: NIST SP 800-82 Rev. 3; Section 4.1.1, OT specific guidance; PDF page 63.

Answer:

Owner, evidence reference and follow up date:

OT-04

Which assessment methods are safe for this equipment?

Document fragile or unsupported components, prohibited activities, stop conditions and approved windows. Passive observation reduces interactions, and installing monitoring equipment is planned as an operational change.

Evidence to gather

Approved scope, vendor constraints, test restrictions, stop authority and offline test options.

If something is missing

Begin with records and interviews. Obtain an approved method before using tools on production equipment.

Topic reference: NIST SP 800-82 Rev. 3; Section 4.3.5, Table 10; section 6.3.2.4; PDF page 80.

Answer:

Owner, evidence reference and follow up date:

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OT-05

Can you identify the OT assets and their owners?

Include controllers, HMIs, engineering workstations, network devices and supporting servers. Record model, software/firmware version, location and responsibility where available. Engineering records and manual checks are where we look for isolated or non IP equipment alongside the discovery result.

Evidence to gather

Current inventory, source/date of each record, owners and a list of assets awaiting identification.

If something is missing

Reconcile existing engineering records with approved observation and manual checks before adding automated discovery.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.1.1 and 6.1.1.2; PDF page 108.

Answer:

Owner, evidence reference and follow up date:

OT-06

Which assets matter most to continuing safe operations?

Two similar devices may have very different consequences if unavailable or manipulated. Identify process dependence and recovery order so limited assessment time is directed to important functions.

Evidence to gather

Criticality rationale, process dependencies, single points of failure and recovery priorities.

If something is missing

Ask operations to explain the impact of losing each critical function, and rank by that impact.

Topic reference: NIST SP 800-82 Rev. 3; Sections 4.1.1-4.1.2 and 5.3.2; PDF page 63.

Answer:

Owner, evidence reference and follow up date:

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OT-07

Do the diagrams show the connections that actually exist?

Include IT/OT boundaries, vendor paths, remote stations, wireless links and cloud services. Record who last checked each diagram against the live environment, and when.

Evidence to gather

Dated network diagrams, connection inventory, remote access paths and known undocumented links.

If something is missing

Resolve the important discrepancies with engineering. Confirm isolation against the current configuration rather than an old drawing.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.1.1.2; PDF page 109.

Answer:

Owner, evidence reference and follow up date:

OT-08

Are required communications documented?

Identify source, destination, direction, protocol and operational purpose for important traffic. This gives the team a basis for assessing rules and abnormal behavior without treating every observed connection as necessary.

Evidence to gather

Approved data flow list, process purpose, owners and available observations.

If something is missing

Have system owners explain each undocumented flow before proposing restrictions.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.1.1.1; PDF page 109.

Answer:

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OT-09

Are network segments separated by effective controls?

Firewall and switch rules, rather than a diagram or a VLAN label, show which traffic is permitted. Review enforcement between business networks, OT zones and management paths against required communications and safety needs.

Evidence to gather

Architecture, firewall/ACL exports, allowed flows and the latest approved rule review.

If something is missing

Arrange a configuration review first, and agree the operational method for any live validation.

Topic reference: NIST SP 800-82 Rev. 3; Section 5.2.3.1; PDF page 88.

Answer:

Owner, evidence reference and follow up date:

OT-10

Can management connections bypass the intended boundary?

Check for second network interfaces, temporary connections, remote tools and maintenance paths that bridge segments. Evaluate their purpose and controls, and set the treatment for each one.

Evidence to gather

Management path inventory, interfaces, remote tools and approved exceptions.

If something is missing

Have engineering review each bridge and document how the intended boundary is maintained.

Topic reference: NIST SP 800-82 Rev. 3; Section 5.2.3.1; section 6.2.5; PDF page 88.

Answer:

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OT-11

How are physical access and remote locations controlled?

Cabinets, control rooms and field equipment can be reached through physical routes as well as network paths. Identify who can enter, how visitors are handled and whether unstaffed sites have suitable protection.

Evidence to gather

Access lists, visitor process, cabinet controls, site checks and responsible owners.

If something is missing

Review the highest consequence locations with the physical security and operations teams.

Topic reference: NIST SP 800-82 Rev. 3; Section 5.2.2; PDF page 86.

Answer:

Owner, evidence reference and follow up date:

OT-12

Do access permissions follow current responsibilities?

Identify operator, engineer, administrator and vendor permissions. Include how accounts are issued, changed and removed. Document the reason and the compensating measures for each shared or legacy account.

Evidence to gather

Account/role list, approval records, departures/role changes and exceptions.

If something is missing

Reconcile accounts with current authorized personnel and escalate unexplained privileged access.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.1 and 6.2.1.1; PDF page 114.

Answer:

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OT-13

Can operators still act safely during an authentication failure?

Set authentication and session lock settings to support urgent operator action. Identify where technical constraints or emergency needs change the design and how access remains controlled in those cases.

Evidence to gather

Emergency access procedure, HMI constraints, access safeguards and review approvals.

If something is missing

Review proposed authentication changes with the process and safety owners before applying them.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.1, OT specific guidance; PDF page 114.

Answer:

Owner, evidence reference and follow up date:

OT-14

Are vendor connections approved, limited and removed when finished?

Record the business reason, user, permitted systems, access window and removal method. Operations should know when remote work is planned. Give continuous support a defined, documented arrangement.

Evidence to gather

Vendor access register, approvals, session records and expiry/revocation process.

If something is missing

Review active access with the responsible vendor and operator before scheduling changes.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.10; PDF page 139.

Answer:

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OT-15

Where is remote user authentication enforced?

Confirm how remote users are identified and where MFA or compensating controls are applied. Protecting an access gateway is different from adding authentication directly to every controller.

Evidence to gather

Remote access design, identity settings, MFA coverage and documented exceptions.

If something is missing

Agree on a feasible, tested architecture for unsupported devices.

Topic reference: NIST SP 800-82 Rev. 3; Sections 6.2.1.4.4 and 6.2.10; PDF page 123.

Answer:

Owner, evidence reference and follow up date:

OT-16

Are wireless and cellular connections part of the scope?

Radio and cellular paths can provide access outside the expected wired perimeter. Record ownership, purpose, authentication and the operational effects of losing the link.

Evidence to gather

Wireless/cellular inventory, configurations, providers and engineering requirements.

If something is missing

Identify undocumented links and have engineering assess them before changing radio or network settings.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.9; PDF page 137.

Answer:

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OT-17

Are control system changes recorded and approved?

A current configuration earns its value when the team can show who changed it and restore the prior state. Include logic, setpoints where relevant, firmware, network rules and supporting applications in the change process.

Evidence to gather

Approved changes, baseline versions, backup points, test records and rollback instructions.

If something is missing

Reconcile recent changes with the configuration owner and record missing approvals or recovery material.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.4.2; PDF page 128.

Answer:

Owner, evidence reference and follow up date:

OT-18

How are relevant vulnerabilities identified without unsafe probing?

Use the asset/version inventory, vendor notices and approved assessment methods to identify exposure. Those sources are where we look for weaknesses first, and any scanning tool is selected with its effect on control system communications in mind.

Evidence to gather

Inventory/version records, vendor advisories, review process and approved tool methods.

If something is missing

Start with the known estate and advisories. Assess tool compatibility offline before production use.

Topic reference: NIST SP 800-82 Rev. 3; Sections 6.2.11 and 6.3.2.4; PDF page 141.

Answer:

Owner, evidence reference and follow up date:

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OT-19

Are patch decisions based on operational and security risk?

Record applicability, vendor advice, testing, deployment windows and rollback. Where a patch is delayed or unavailable, capture the reason, interim protection and date for reconsideration.

Evidence to gather

Patch decisions, offline test results, exception owner and planned maintenance window.

If something is missing

Ask knowledgeable OT personnel to decide the treatment and set a patch schedule that fits OT operations.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.11; PDF page 141.

Answer:

Owner, evidence reference and follow up date:

OT-20

Are unsupported components managed as a continuing risk?

Old equipment may remain necessary for the process. Identify support status, exposure, spare availability and feasible protective measures. An upgrade plan should account for engineering dependencies, not just the software version.

Evidence to gather

Support/lifecycle register, compensating controls, replacement plan and approved risk decisions.

If something is missing

Assign an owner to each important unsupported component and define the next review milestone.

Topic reference: NIST SP 800-82 Rev. 3; Section 5.1.1 and section 6.2.11; PDF page 84.

Answer:

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OT-21

Are maintenance tools and vendor laptops controlled?

Service equipment and software can carry changes or malicious content into the OT environment. Record which tools are approved, how their origin is checked and how maintenance activities are logged.

Evidence to gather

Approved tools, vendor software provenance, maintenance authorizations and activity records.

If something is missing

Review the maintenance entry process with the equipment owner before the next service visit.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.5; PDF page 134.

Answer:

Owner, evidence reference and follow up date:

OT-22

Are removable media and portable equipment handled consistently?

Identify how USB devices, portable drives and other media enter, move through and leave the environment. Include authorization, labeling, storage and the treatment of sensitive configuration files.

Evidence to gather

Media procedure, permitted devices, transfer records and storage/sanitization arrangements.

If something is missing

Establish an approved, practical transfer route that engineers can use.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.7; PDF page 136.

Answer:

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OT-23

Is malware protection compatible with the control applications?

Security software and signature updates can affect performance or essential files. Identify supported protection, exclusions, update arrangements and the measures used where agents cannot safely operate.

Evidence to gather

Vendor compatibility guidance, protection configuration, exceptions and update/test records.

If something is missing

Review changes with engineering and the vendor before enabling new scans or endpoint agents.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.3.2.3; PDF page 148.

Answer:

Owner, evidence reference and follow up date:

OT-24

Do the available logs cover important changes and access?

List the sources actually recording activity, the events retained and the retention period. Check each configured log source for capacity, export and collection coverage. Protect the records needed for later analysis.

Evidence to gather

Sample logs, logging configuration, retention/capacity settings and access controls.

If something is missing

Confirm one representative event is retained through the collection path using an approved verification method.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.6.1; PDF page 135.

Answer:

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OT-25

Can timestamps be compared across the relevant systems?

Record time sources, time zones and known clock differences. Accurate time supports troubleshooting and event correlation, but changes to time services can also affect control functions and need engineering review.

Evidence to gather

Time configuration, source dependencies, clock checks and known exceptions.

If something is missing

Document discrepancies before changing clocks. Have engineering approve any synchronization change.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.12; PDF page 142.

Answer:

Owner, evidence reference and follow up date:

OT-26

Who receives and acts on an OT security alert?

A monitoring system delivers value when the team understands normal behavior and can act on meaningful deviations. Identify escalation, operating context and response arrangements for remote or unstaffed sites.

Evidence to gather

Alert rules, normal activity baselines, duty contacts and representative handling records.

If something is missing

Choose a representative scenario and confirm the response path through an approved tabletop or review.

Topic reference: NIST SP 800-82 Rev. 3; Sections 6.3.1-6.3.3; PDF page 144.

Answer:

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OT-27

Is the organization able to recover the important configurations?

Include controller logic, HMI files, network configurations and the tools and licenses needed to use them. Prove restoration by bringing a working system back; a successful file copy proves the copy.

Evidence to gather

Backup inventory, versions, engineering dependencies and recent restore evidence.

If something is missing

Use the OT backup checklist to identify missing recovery dependencies before scheduling a safe exercise.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.4.3; PDF page 129.

Answer:

Owner, evidence reference and follow up date:

OT-28

Are recovery objectives and startup dependencies agreed?

Define the tolerable outage and data loss for the important functions. Restoration order follows power, communications, safety checks and equipment availability as well as server recovery.

Evidence to gather

Approved RTO/RPO, startup sequence, dependencies and available spares.

If something is missing

Have operations validate the recovery sequence and identify assumptions that have not been demonstrated.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.4.5; PDF page 131.

Answer:

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OT-29

Does the incident plan cover safe containment and continuity?

Disconnecting a suspected device may interrupt an essential process or remove operator visibility. The plan should connect security decisions to operational authority, safety conditions and alternatives such as controlled manual operation.

Evidence to gather

Incident plan, decision authority, safe operating limits and emergency contacts.

If something is missing

Walk through a plausible scenario with engineering and operations and adapt the playbook to the plant.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.4.5, OT specific guidance; PDF page 133.

Answer:

Owner, evidence reference and follow up date:

OT-30

Have the relevant people practiced their roles?

Operators, maintainers, IT, security and outside providers need to know their part in an incident or recovery. An exercise, beyond a signed policy acknowledgement, shows the plan works under pressure.

Evidence to gather

Role specific training, exercise records, lessons and outstanding actions.

If something is missing

Plan an authorized tabletop that includes the important operational decisions and external dependencies.

Topic reference: NIST SP 800-82 Rev. 3; Sections 3.3.5 and 6.2.4.5; PDF page 58.

Answer:

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OT-31

Are power and environmental dependencies included?

Cooling, reliable power and environmental protection support the control equipment. Record what happens during a power interruption, how equipment reaches a safe state and who maintains the supporting protection.

Evidence to gather

Power/UPS arrangements, environmental monitoring and maintenance records.

If something is missing

Review critical dependencies with facilities and engineering, leaving live power and safety systems as they are.

Topic reference: NIST SP 800-82 Rev. 3; Section 6.2.4.4; PDF page 130.

Answer:

Owner, evidence reference and follow up date:

OT-32

Are significant exceptions assigned and revisited?

Where a particular device calls for a different protection, record the reason, the accepted risk, interim measures and the decision owner. Keep each exception visible after the assessment is filed.

Evidence to gather

Risk/exception register, approvals, treatment actions and review dates.

If something is missing

Agree on a risk based action plan and who can accept unresolved exposure.

Topic reference: NIST SP 800-82 Rev. 3; Sections 3.3 and 4.3.5; PDF page 54.

Answer:

Owner, evidence reference and follow up date:

Final Guide and Revision 4 Draft

SP 800-82 Revision 3 (September 2023) is the current final guide and the basis for these questions. NIST released Revision 4 as an initial public draft on September 21, 2026, with public comments due November 30, 2026.

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NIST SP 800-82 Rev. 3 final publication record | NIST SP 800-82 Rev. 4 initial public draft record

Bring the Scope to a Senior OT Lead

Bring the process boundary, the responsible engineers and your review objective to a free scoping call with a senior GDF OT security lead. On that first call we agree the operating limits, the records to review first and the approval gates for any testing, and we set out the timeline and the deliverables. Call (786) 219-1210 or the 24/7 hotline at (800) 868-8189, or write to info@evestigate.com. To keep preparing, browse the OT security guide library.

Talk to a Senior GDF Security Lead

Bring this checklist to a free scoping call. We review your answers, confirm the systems and operating limits that matter and set out the testing depth, the timeline and the deliverables.

Miami office: (786) 219-1210 · **24/7 hotline:** (800) 868-8189 · **Email:** info@evestigate.com

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