



STATE OF NEW JERSEY TECHNOLOGY CIRCULAR System Architecture Review (SAR) Procedure	POLICY NO:	
	16-05-P1-NJOIT	
	SUPERSEDES:	EFFECTIVE DATE:
	12-12-2016	12-12-2016
	VERSION:	LAST REVIEWED:
	2.0	09-13-2024

1 OBJECTIVE

The System Architecture Review (SAR) process ensures that technology solutions for the State are conceived, designed, developed, and deployed to maximize the benefits and functionality of the technology solutions, while minimizing costs and risks. The SAR process also ensures compliance with cybersecurity, architecture standards and best practices, as well as provides for the controlled introduction of new technologies and the appropriate reuse of existing technology in order to increase returns on investment.

The SAR process informs agency representatives regarding the following:

- Cybersecurity and privacy requirements;
- Cross-Agency interoperability of systems;
- Data sharing and reuse;
- Opportunities to leverage economies of scale and/or existing solutions;
- Impact on existing technology infrastructure and operations;
- Prioritization of resources, including staff levels; and
- Disaster recovery & business continuity requirements.

2 PARTIES

A SAR is performed by the New Jersey Office of Information Technology (NJOIT) for Executive Branch State government departments and agencies (Reviewee) under the direction of the Chief Technology Officer (CTO).

3 CRITERIA

A SAR is required when:

A new solution is being developed or acquired, including but not limited to:

- Procurement of a Commercial-off-the-Shelf (COTS) package;
- Utilizing an “X as a Service” solution, including, but not limited to:
 - Software (SaaS);
 - Platform (PaaS); or
 - Infrastructure (IaaS).
- Custom development software applications;
- Integrating new hardware with the Garden State Network; and
- Installing new hardware at any of the State Enterprise Data Centers.
- A significant enhancement or modification is being made to an existing solution. Significant enhancements/modification examples include, but are not limited to:
 - Addition, modification or removal of enterprise solutions or functionality such as e-mail, e-payment, myNJ Portal, or reporting functionality;
 - Addition, modification or removal of application specific functionality such as adding/removing a server call, adding/removing a web service call;
 - Changes to an extranet or firewall; and
 - Changes to any information system platform (e.g. database, web server, application server, etc.).
- An information or data system with application design changes, since the last SAR.
- A vendor solicitation with an information technology requirement. e.g., Request for Proposal (RFP); Request for Quotation (RFQ); Request for Information (RFI).

4 PARTICIPATION

The following stakeholders are required to participate and attend the stages of the SAR process as follows:

1. Technology Initiation Proposal SAR:
 - Agency Business Owner/Project Sponsor
 - Agency Chief Information Officer (CIO) or their designate
 - NJOIT Fiscal Management/Procurement

- Treasury Division of Purchase & Property (DPP)
- Office of Homeland Security & Preparedness (OHSP)
- And a subject matter expert (SME) representative from each of the following OIT functional areas, as applicable:
- Application Development, Architecture, Capacity Planning, Change Management, Database, Digital Services, Disaster Recovery, Facilities, GIS, Identity Management, Mainframe, Network, Performance Management, Portal, Security, Server, Storage, Telecom

2. Logical, and Implementation SARs:

- Agency Business Owner/Project Sponsor
- Project Manager
- Agency Chief Information Officer (CIO) or their designate
- Office of Homeland Security & Preparedness (OHSP)
- And a subject matter expert (SME) representative from each of the following OIT functional areas, as applicable:
- Application Development, Architecture, Capacity Planning, Change Management, Database, Digital Services, Disaster Recovery, Facilities, GIS, Identity Management, Mainframe, Network, Performance Management, Portal, Security, Server, Storage, Telecom

5 PROCEDURE

The SAR process begins when the Executive Branch of State government submits a TIP request

- A TIP Request, with complete supporting documentation, must be submitted to SAR, for each phase of the SAR process. SAR forms for submission can be found at <https://nj.gov/it/whatwedo/sar/> Any questions regarding completion of the documentation may be sent to SAR@tech.nj.gov.
- Only one phase of SAR should be requested at a time (Technology Initiation Proposal, Logical, Validated Design, or Implementation).
- Electronic reviews (e-Reviews) are held as warranted (see "Electronic Review," below).
- SAR documents older than one year must be updated with current information before submitting.

- If providing an update, resubmissions must identify the reason(s) for the change or modification.
- Scheduling is handled on a first submitted, first reviewed basis.

Four independent review stages are held, in sequence, during the project development lifecycle:

1. Technology Initiation Proposal (TIP) SAR: The Agency submits its completed TIP form. Access to the form is available on the SAR website (<https://nj.gov/it/whatwedo/sar/>). Questions would be sent via email to: SAR@tech.nj.gov. TIP meetings are regularly scheduled on Mondays, weekly.

- A TIP review is performed:
 - Before an RFP/RFQ/RFI is generated, and
 - After the department or agency obtains internal approval of the business case.
- During the Technology Initiation Proposal review, the NJOIT facilitates discussion and:
 - Evaluates the documentation provided. Documents are reviewed section by section during the meeting and any changes or questions are noted;
 - Confirms that the project aligns with the State's enterprise architecture strategy, standards and processes;
 - Confirms that the project aligns with the State's data and information management strategy, standards and processes;
 - Evaluates the request's impact on existing infrastructure or IT capacity so that proper planning can take place;
 - Recommends leveraging existing State assets, as appropriate and considers how the proposed solution might be used by others;
 - Confirms that the plan complies with State and/or federal cybersecurity requirements;
 - Reviews and validates data classification for the proposed solution; and
 - Identifies the costs and risks of certain decisions.

Upon completion of the meeting a markup is distributed via e-mail along with a meeting recap to all participants, which includes discussion points from the meeting and any Action Items that must be resolved before the Logical SAR.

2. **Logical SAR (LSAR):** The Agency submits their completed LSAR (On Premises or Cloud) to request a review, along with their updated Recap Spreadsheet. Meetings are scheduled on the second and fourth Thursdays of the month. (Exceptions to this are the months of November and December where the reviews may be rescheduled to alternate Thursdays due to the holidays.)

- An LSAR is performed:
 - Before any hardware or software is procured or installed;
 - After an RFP or RFQ is awarded; and
 - Before any coding is begun.
- During a LSAR, the NJOIT facilitates discussion and the LSAR team:
 - Evaluates the documentation provided. Documents are reviewed section by section during the meeting and any changes or questions are noted;
 - Ensures that capacity, resources, hardware and software needs are identified;
 - Ensures that the data requirements are defined;
 - Ensures that infrastructure requirements are defined;
 - Reaffirms that cybersecurity requirements are defined;
 - Identifies, at the technical level, any existing systems that are impacted and may require change; and
 - Identifies, at the technical level, the costs and risks of certain decisions and any remediation required.

Upon completion of the meeting a markup is distributed via e-mail along with a meeting recap to all participants, which includes discussion points from the meeting and any Action Items that must be resolved before the Implementation SAR.

3. **Validated Design:** The Agency creates and submits their completed design document to OIT. OIT Solutions Architecture provides guidance in the creation of the design document when needed. The Agency submits these defined interfaces which are presented to OIT ISU and OHSP for approval.

The Validated Design checkpoint is the point in a project’s lifecycle that marks the end of the design phase. This means that the system components, data and control flows, and interfaces have been finalized and documented in diagram form.

The final design is also used as the reference point for any operational work that needs to be done, (e.g., firewall rule requests, server build work, etc.). Completion of Validated Design is a prerequisite for the IR stage.

- During the Validated Design, the NJOIT facilitates discussion and:

- Ensures that the capacity, resources, hardware and software required for production deployment (including backup and disaster recovery) are identified and approved;
- Ensures that cybersecurity requirements are met;
- Validates that data are modeled, named and defined consistently across and within systems, and in compliance with enterprise standards.

Upon approval of the Validated Design, OIT sends communication to the Agency and work requests need to be generated to trigger the OIT business units' work related to the solution.

4. Implementation Review (IR) SAR: The Agency submits their completed IR form (On Premises or Cloud) to request a review, along with their updated Recap Spreadsheet. An Implementation SAR should be requested no less than two weeks before go-live of any phase.

- An IR is held electronically and there is a five business day review cycle.
- During an IR, the NJOIT:
 - Evaluates the documentation provided. Documents are reviewed section by section and any changes or questions are noted;
 - Determines whether the project is ready for deployment – all outstanding action items are resolved and/or remediated;
 - Assures that all cybersecurity requirements are successfully tested; and
 - Assures that the date for deployment, impact on other systems and related deployment activities have been assigned, agreed upon and communicated to stakeholders well in advance.

Upon completion of the review a markup is distributed via e-mail along with a recap to all participants, which includes discussion points from the review and any Action Items that must be resolved before project end.

An **Electronic review (e-Review)** is performed as warranted.

- During an e-Review, there is a five business day review cycle and the NJOIT:
 - Distributes the SAR request and documents to all participants for their review and comment.
 - Compiles questions and responses into notes, which are sent out at the end of the e-Review cycle, along with any notes on Action Items that have been raised.

- Cancels the e-Review and schedules a formal meeting if the questions raised during the review cycle require more discussion than can be successfully concluded through e-mail.

NJOIT reserves the right to change or amend this Procedure at any time.

Forms and templates required for the SAR process can be found on the NJOIT website: <https://nj.gov/it/whatwedo/sar/>. Ancillary SAR documents may also be found at this location.

6 ADMINISTRATION

This Policy is administered and monitored by the CTO at 300 Riverview Plaza, Trenton, NJ 08625.

The Policy must be reviewed annually; however, the CTO reserves the right to change or amend the Policy at any time.

Signature on file

CHRISTOPHER J. REIN, CHIEF TECHNOLOGY OFFICER

09/13/2024

DATE

Version	Published Date	CTO	Sections Modified	Description of Modifications
1.0	12-12-2016	Christopher J. Rein		Original Published Date
2.0	09-13-2024	Christopher J. Rein	1-5	