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STATE OF NEW JERSEY TECHNOLOGY CIRCULAR System Architecture Review Procedure	POLICY NO: **16-05-PI-NJOIT**	
	SUPERSEDES: NEW	**EFFECTIVE DATE:** 12/12/2016
	VERSION: 1.0	**LAST REVIEWED:** 12/12/2016

1   OBJECTIVE

Conduct a System Architecture Review (SAR) and provide an approval for plans requesting to create or modify any Executive Branch information and technology systems under the direction of the Chief Technology Officer (CTO) New Jersey Office of Information Technology (NJOIT)

- A SAR informs:

    o Cybersecurity and privacy requirements,

    o Cross-Agency interoperability of systems,

    o Data sharing and reuse,

    o Opportunities to leverage economies of scale and/or existing solutions,

    o Impact on existing technology infrastructure and operations,

    o Prioritization of resources, including staff levels, and

    o 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 (Reviewee) under the direction of the CTO.

3   CRITERIA

A SAR is required when:

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

    o   Custom development software applications,

    o   Procurement of a Commercial off the Shelf (COTS) package,

    o   Utilizing an "X as a Service" solution, including, but not limited to:

        - Software (SaaS),

        - Platform (PaaS), or

        - Infrastructure (IaaS)

    o   Integrating new hardware with the Garden State Network, and

    o   Installing new hardware at any of the State Enterprise Data Centers

- A significant <u>enhancement or modification is being made to an existing solution.</u> Significant enhancements/modification examples include, but are not limited to:

    o   Addition, modification or removal of enterprise solutions or functionality such as e-mail, e-payment, myNJ Portal, or reporting functionality,

    o   Addition, modification or removal of application specific functionality such as adding/removing a server call, adding/removing web service call,

    o   Changes to an extranet or firewall, and

    o   Changes to any information system platform (i. e. database, web server, application server, etc.).

- An information or data system with <u>application design changes,</u> since the last SAR.

- A <u>vendor solicitation</u> with an infrastructure technology requirement. e.g., Requests for Proposal (RFP); Quotation (RFQ); Information (RFI).

4   PROCEDURE

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://www.nj.gov/it/whatwedo/sar/ . Ancillary SAR documents may also be found at this location.

A SAR is launched when the Enterprise Branch of state government submits a SAR Meeting Request:

- A SAR Meeting Request, with complete supporting documentation, must be submitted to OIT SARList@tech.nj.gov, for each phase of a SAR. Any questions regarding completion of the documentation may be sent to OIT SARList@tech.nj.gov.

- Only one phase of SAR should be requested at a time (Conceptual, Logical, Physical, and Implementation).

- Electronic reviews (e-Reviews) are held at the request of the Deputy CTO, Enterprise Services.

- 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.

- The SAR scheduling calendar can be found at.

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

1. **Conceptual SAR:** Scheduled every Monday afternoon between 1:30-3:00.

   o A Conceptual SAR is performed:

     - Before an RFP/RFQ/RFI has been generated, or

     - Before a vendor or product has been selected, and

     - After the Reviewee has obtained internal approval of its business case.

   o During the Conceptual SAR, 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 the project aligns with the State's enterprise architecture strategy, standards and processes,

- Confirms the project aligns with the State's data and information management strategy, standards and processes,

- Evaluates the requests impact on existing infrastructure or IT capacity so that proper planning can take place,

- Recommends leveraging existing State assets, as appropriate, as well as considering how the proposed solution might be leveraged by others,

- Confirms the plan complies with State and/or Federal cybersecurity requirements,

- Reviews and validates digital asset classification for the proposed solution,

- Prioritizes the work against other projects based on the enterprise architecture strategy, and

- Identifies the costs and risks of certain decisions, and

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

2. **Logical SAR:** Scheduled on the second and fourth Thursdays of the month between 10-noon. (Exceptions to this are the months of November and December where the reviews are re-scheduled to alternate Thursdays due to the holidays.)

   o A Logical SAR is performed:

      - Before any hardware or software is procured or installed,

      - After an RFP or RFQ is awarded, and

      - Before any coding is begun.

   o During a Logical SAR, 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,

- 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,

- Identifies, at the technical level, the costs and risks of certain decisions and any remediation required, and

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

3. **Physical SAR:** Scheduled on the second and fourth Thursdays of the month between 10-noon. (Exceptions to this are the months of November and December where the reviews are rescheduled to alternate Thursdays due to the holidays.)

   o A Physical SAR is performed once a validated production architecture design has been produced.

   o During a Physical SAR, 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,

   - 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, and

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

4. **Implementation SAR** is performed no less than two weeks before go-live of any phase.

- An Implementation SAR is held electronically and there is a five (5) business day review cycle.

- During a Implementation SAR, 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,

    - 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, and

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

5. **Electronic review (e-Review)** is performed at the request of the Deputy CTO Enterprise Services.

- During an e Review, there is a five (5) business day review cycle and the NJOIT:

    - Distributes the SAR request and documents via e-mail to all participants for their review and comment.

    - Compiles questions and responses are into notes and are sent out at the end of the e-Review cycle along with any 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.

5   PARTICIPATION

Participation and attendance is required by the following stakeholders for each review:

1. Conceptual SAR:

    - Agency Sponsor

    - Agency CIO

    - NJOIT Business Development Director representing the Agency

- o NJOIT Deputy CTO, Enterprise Services
- o NJOIT Information Security Officer
- o NJOIT Project Management Office (PMO)
- o COO Statewide Chief Data Officer
- o OHSP Statewide Information Security

2. Logical, Physical, and Implementation SARs:

- o Agency Sponsor
- o Agency Project Manager
- o NJOIT Deputy CTO, Enterprise Services or designee
- o NJOIT Project Management Office
- o NJOIT Enterprise Data Serves (EDS)
- o NJOIT Architecture
- o Subject Matter Expert(s) as needed and determined by the OIT Deputy CTO, Enterprise Services

6 EXEMPTIONS

On a case-by case basis, the CTO may approve a SAR exemption.

Requests for exemptions to the Policy shall be made to the Deputy, CTO for Enterprise Services.