# System Architecture Review Glossary

| Term | Definition |
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| AAP | Application Architecture Planning Replaced by the SAR (System Architecture Review) process, AAP was an architectural review of the application, usually after the design stage, held with the developer and Solutions Architects. |
| Architect | A role responsible for vision, planning, and guiding efforts in a domain or technology. Enterprise Domain Architects focus on an enterprise domain, while Technology Architects focus on a technology. |
| ASAI | Automated. Server Application Inventory. An in house developed application that collects information on hardware installed or supported within the OIT infrastructure, and applications that runs on them. |
| Availability Bulk Mail | The extent to which data should be accessible by the parties intended.<br>• Delivers a single mailing to 50 or more recipients outside of the GSN.<br>• Generates 100 or more different messages to recipients outside the GSN within a single job stream.<br>• Any marketing email that delivers opt in messages outside the GSN. |
| Business Case Review | Formerly called the Conceptual System Architecture Review, this process and associated documentation establishes the business case for the project, defines the high level scope, discusses solutions, identifies risks, and provides a high level schedule. This is the first phase of the PIPE Line process. In large projects, this meeting will take place during RFP design. |
| Change Management | Change Management, at OIT, is defined as the process that insulates the information technology environments from the negative impact of changes that are potentially disruptive or have significant risk associated with them. It is the ongoing process of communicating, coordinating, scheduling, monitoring, and controlling changes to those environments. |
| Chief Enterprise Architect | The Chief Architect is responsible for leading and facilitating the creation of the state's architecture to achieve the following:<br>• Increased value and effectiveness per dollar spent Organizing logic for business processes and information technology.<br>• Definition of the state's desired level of integration and standardization.<br>• Strategic use of emerging technologies to better manage the enterprise's information and consistently insert those technologies into the enterprise.<br>• The primary role of the Chief Architect is to inform, guide, and |

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| | influence the architecture decisions for OIT and the enterprise, especially those related to IT investments. |
| **Conceptual Data Model** | Conceptual Data Models are also referred to as subject area models. They represent a high level perspective of a subject area (realm) important to the business without regard to technology. This level of detail should just touch the complexity of the business, not delve into it. |
| **Conceptual SAR** | See Business Case Review. |
| **Confidentiality Construction Phase** | The extent to which data should be limited only to the parties intended. This phase occurs after Elaboration and authorization to proceed and is where the application is built, and unit tested. A Physical System Architecture Review is performed during this phase, and detailed documentation and deployment plans are prepared at the conclusion of this phase. |
| **COTS** | Commercial Off The Shelf software package. |
| **Criticality** | The degree to which a loss of the system or its data has the potential to result in harm or loss to the State or stakeholders. It is based upon the nature of the service, the risk to the State or stakeholders if it is interrupted and the ability, if any, to conduct business operations manually. |
| **Data Architect** | The Data Architect is a solutions architect responsible for the creation and maintenance of the State's logical data model and for the consistent naming and definition of logical and physical data objects. In the SAR process, the Data Architect reviews the logical and physical designs of project data modelers to make sure that existing data structures and sources are leveraged, new data structures are integrated, and inconsistent data definitions are avoided. |
| **Database Architect** | The Database Architect is a solutions architect responsible for the planning of the State's physical database management system (DBMS) hosting. In the SAR process, the Database Architect reviews the DBMS logical and physical requirements to make sure that the existing hosting environment is leveraged, new software is properly installed and configured as needed, and inconsistent deployments are avoided |
| **Disaster Recovery** | A plan for duplicating computer operations after a catastrophe occurs, such as fire, flood, or earthquake. It includes routine off site backups as well as a procedure for activating vital information systems in a new location. |
| **Disaster Restoration Point Objective** | The greatest acceptable time since the last stable, available copy of the data to be restored at the disaster recovery system can be utilized, after which as a result of the data center failure, data will have been permanently lost and cannot be recreated. |

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| **Disaster Restoration Time Objective** | The expected time to recover the IT service at the disaster recovery site after an outage caused by a data center failure. |
| **EADI** | Enterprise Application Development and Integration. Formerly known as Application Development and Maintenance, this unit has been, and continues to be, the backbone for OIT. The new name of the unit reflects its increased focus on the area of systems integration. |
| **Elaboration Phase** | This phase occurs after Inception and authorization to proceed and is where detailed requirements are gathered with a logical perspective. A Logical System Architecture Review is performed during this phase, and a detailed project design, cost estimate and schedule are prepared at the conclusion of this phase. |
| **Engineer** | Team Leaders and Subject Matter Experts for a project. Focused on the physical design and implementation. Also called a Technology Engineer. |
| **Enterprise Architects** | Abstract thinkers with a broad perspective, focused on the future to build a strong yet flexible foundation for all solutions and establish the principles needed to affect this result. The Enterprise Architect coordinates the efforts of the four high level domain architects (Business, Application, Information, and Infrastructure) to create a cohesive enterprise architecture. |
| **Enterprise Domain Architects** | Characterized as having an "Enterprise" or institutional orientation rather than technology focus, the Enterprise Domain Architect ensures that the institution has the means to leverage its knowledge resources; possesses in depth knowledge of enterprise information resource management (knowledge management); develops and sustains the enterprise domain architecture (plan); establishes plans, strategies and standards for data/domain management, database management, data management tool administration; introduces new industry practices for knowledge management; has familiarity with knowledge management technologies but may not possess in depth technical knowledge, supervising the technical staff that does. |
| **Entity** | In data modeling (a first step in the creation of a database), an entity is some unit of data that can be classified and have stated relationships to other entities. |
| **ERD** | An entity relationship diagram is a data modeling technique that creates a graphical representation of the entities, and the relationships between entities, within an information system. |
| **Framework** | A software framework is a re usable design for a software system (or subsystem). This may include support programs, code libraries, a scripting language, or other software to help develop and glue together the different components of a software project. Various parts of the framework may be exposed through an Application Programming |

| | Interface (API). |
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| **GSN** | Garden State Network; a multi agency, multi protocol network across New Jersey. This network supports State agencies through dedicated and switched services in support of centralized and distributed data processing applications resident in mainframe, mini computer, local area network (LAN), and personal computer environments. The GSN also provides Internet and email services. |
| **High Availability** | The ability of an application to continue to function in the face of predictable or expected events without interruption, or with only minimal interruption and recove1y. |
| **HIPAA** | Health Insurance Portability and Accountability Act (HIPAA) enacted by Congress in 1996. |
| **Identity Management Architect** | The person responsible for developing a coherent set of standards, policies, certifications, and management activities aimed at providing a context for implementing a digital identity infrastructure that meets the goals and objectives of current business needs and is capable of evolving with the business to ensure that the infrastructure continues to meet business needs. |
| **Implementation Review** | This is the fourth phase of the PIPE Line process. It assures that the project has met all the necessary requirements to move from the development phase to the production phase. Dates for deployment, impact on other systems and related deployment activities have been assigned. |
| **Inception Phase** | This phase occurs after Initiation and is where high level requirements are gathered with a conceptual perspective. A Conceptual System Architecture Review (SAR) is performed during this phase, and a high level project cost estimate and schedule are prepared at the conclusion of this phase. |
| **Information Architect** | The Information Architect is an enterprise domain architect and part of the Enterprise Architecture team. The Information Architect is responsible for the definition and use of the State's Common Information Architecture to manage data quality and provide efficient delivery of rationalized information to business management. In the SAR process, the Information Architect reviews conceptual designs to make sure that existing architecture components are leveraged, new components are integrated, and inconsistent architecture is avoided. |
| **Integrated Planning Process** | A process that facilitates the intake of work, provides visibility to management of current workload, feeds the Information Technology Infrastructure Library (ITIL) processes and the Project Initiation, Planning and Execution Line (PIPE Line) Process, formerly known as the System Architecture Review (SAR). |

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| **Integrity** | The extent to which data must be protected from unauthorized alteration and the context of the data must be maintained. |
| **IOPS** | IOPS is the standard unit of measurement for input/output operations per second. |
| **Information Technology Infrastructure Library** | A set of concepts and policies for managing Information Technology infrastructure, development, and operations. |
| **KPI** | Key Performance Indicator; quantifiable measurements, agreed to beforehand, that reflect the critical success factors (of the company, department, project.) |
| **Logical Business Model** | A Logical Business Model (LBM) is the data model for a business subject area. It is a fully attributed view that documents both relationships and unique identifiers. It does not reference the characteristics of a pa1iicular database system or the physical storage of data. |
| **Logical Data Model** | Logical Data Models (LDM) are also referred to as business models. An LDM captures the data and rules that identify how the business works in the form of an Entity Relationship Diagram (ERD). It is logical, in that it is independent of a particular system or technology. All rules and terms are combined into more generic forms where possible. AN LDM should identify all data elements within its scope. It should capture and document all business rules that describe data or its relationships, even if those rules are not easily shown, or cannot be shown at all, within an ERD. |
| **Logical Design Document** | The models, workflows, transition state diagram, and other artifacts that represent the logical design of the application without regard to the physical implementation of any of the components or the technology platform upon which they are implemented. |
| **Logical Infrastructure Diagram** | The logical diagram shows the infrastructure architecture including the following information: Domain hierarchy, server roles, trust relationships. |
| **Logical SAR** | The second phase of the PIPE Line process, the Logical System Architecture Review is held during the Elaboration Phase and views the logical design of the application without regard to the physical implementation of any of the components, or the technology platform upon which they are implemented. At this point in the process, no code should have been written. |
| **Master Reference Data** | Master reference data is common lookup data shared over a number of systems. Examples might include State abbreviations, County or Municipality names. |
| **NCC** | The Enterprise Help Desk Network Call Center is staffed 24 hours a day, 365 days a year to resolve system outages. All calls made to NCC are |

| | recorded in the Service Center Problem Management System. |
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| **NJ CDA** | New Jersey Common Data Architecture |
| **NJ CIA** | New Jersey Common Information Architecture. A framework for consistent management of the State's information assets. As a domain of the larger Enterprise Architecture, it prescribes the architectural components, standard, practices and tools to be used in creating, delivering and managing information based solutions for the State of New Jersey. |
| **Operational Objective** | Documentation can be found at: https://www.nj.gov/it/whatwedo/sar/ The operational hours during which the application must perform reliably and planned outages should not occur. |
| **Operational Restoration Point Objective** | The greatest acceptable time span since the last stable, available copy of the data to be restored at the production data center site can be utilized, after which, as a result of the component failure, data will have been lost permanently and cannot be recreated. |
| **Operational Restoration Time Objective** | The expected time to restore the IT Service at the production data center after an outage caused by component failure, not a data center failure. |
| **Physical Data Model** | A Physical Data Model (PDM) represents the physical tables/files, fields/columns, and integrity and domain constraints derived from the business entities, attributes, and rules in the Logical Business Model. The model is represented in an Entity Relationship Diagram (ERD), and the data elements should be expressed in a normalized (rational, non redundant) form except to support the requirements of the application.A PDM is used to generate the DDL (Data Definition Language), representing an out of context model, for a specific database system. Changes to the physical system should be made first by changing the PDM, which in turn should be coordinated with the Logical Business Model. |
| **Physical Design Document** | Comprised of all the artifacts which contain information about the realized design of something. |
| **Physical SAR** | The third phase of the PIPE Line process, the Physical System Architecture Review, is held during the Construction Phase. At this point, the technology and platforms have been decided, code has been deployed and initial testing has begun. |
| **Post Implementation Review** | The fifth phase of the PIPE Line process captures how the system performed during the first month after deployment. It can be used to determine if project deadlines and programming and infrastructure requirements have been met and to measure the successes/deficiencies of the system. |

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| **Project Initiation, Planning and Execution Line (PIPE Line)** | The component within the Integrated Planning Process (IPP) that provides oversight, approval and reporting for all projects that require OIT resources. There are 5 separate PIPE Line meetings through the project lifecycle. These meetings are the Business Case Review, Logical Review, Physical Review, Implementation Review and Post Implementation Review. |
| **Project Scope** | Defines the work that is required to deliver the project product or service to meet the project objectives. (HOW the project will be accomplished). |
| **Project Sponsor** | The party or parties for which the application is being developed. The sponsor is usually responsible for financial expenses related to the application. |
| **Rules Engine** | Rules Engines or Inference Engines are the pluggable software components that separate the business rules from the application code. This allows the business users to modify the rules frequently without the need of IT intervention and hence allowing the applications to be more adaptable with the dynamic rules. A rule engine evaluates and executes rules, which are expressed as if then statements. |
| **SAR** | System Architecture Review. A three stage process: Conceptual, Logical and Physical that are held during the lifecycle of system design System Command Center. |
| **SCC** | System Command Center. |
| **Scope Discussions** | Meetings, discussions held to define the work required to meet the project objectives; how the project will be accomplished. |
| **SI Vendor** | System Integrator. Abbreviated as SI, an individual or company that specializes in building complete computer systems by putting together components from different vendors. Unlike software developers, systems integrators typically do not produce any original code. Instead, they enable a company to use off the shelf hardware and software packages to meet the company's computing needs. |
| **Single version of truth** | In the logical design, each logical data element has a standard, agreed upon definition, and whenever possible, an identified authoritative source system of record. In the physical design, Universal Reference and Master Data is identified, published, and used. |
| **SITI** | Shared IT Infrastructure (FOR OIT, this would be the HUB, River Road and OARS). |
| **Solutions Architect** | Subject matter experts that develop the logical and physical design. These would be the groups under the Enterprise Architects such as Network, Middleware, Storage, Operations, Data Management and Security. |

| Stakeholder | An individual with a vested interest in the success of the application development process. |
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| Synthetic Transaction | Real time action performed on monitored objects to measure the availability of service. Synthetic transactions serve no business value other than to exercise the system programming and infrastructure. |
| System Architecture Review Board | The System Architecture Review Board consists of the Chief Enterprise Architect, the Chiefs of EADI (Enterprise Application Development and Integration), Architecture and Standards (A&S), The Chief of Information Security, and Infrastructure Support Services (ISS), and the four Enterprise Domain Architects for applications, business, infrastructure, and information. Individual solutions architects suppo1t the SAR Board members as necessary. |
| Tactical Planning Document | A document that assures that a project is aligned with an agency's Strategic Plan. The Tactical Planning document will be reviewed to determine if a project needs to go through the Integrated Planning Process (IPP). |
| Telephony | Telephony is the technology associated with the electronic transmission of voice, fax, or other information between distant parties using systems historically associated with the telephone. Internet Telephony is the use of the Internet rather than the traditional telephone company infrastructure and rate structure to exchange spoken or other telephone info1mation. |
| VAR or VAR Staff | Short for value added reseller, VARs typically load applications or proprietary software onto computers and may also incorporate third party options to design a complete solution for a client. This "value added" system is often customized for a specific application, but is sold to the VAR's customer base under the original design manufacturer brand; with that manufacturer's warranty, support, and license agreements. |
| Vision Document | This document is designed to make sure that key decision makers have a clear·, shared vision of the objectives and scope of the project. It identifies alternatives and risks associated with the project. Finally, it presents a budget for the detailed planning phase for the stakeholders to approve. |