

State of Arkansas Integrated Eligibility System (ARIES)

I.4.3a - Technical Design Document

Document Control Information

Document Information

Document Identification	I.4.3a
Document Name	Technical Design Document Deliverable
Project Name	Arkansas Integrated Eligibility System (ARIES)
Client	Arkansas Department of Human Services (DHS)
Document Author	Gopi Gunda
Document Version	1.1
Document Status	Revised Submission
Date Released	09/30/2019

Document Edit History

Document Maintenance

This section describes usage of the change history log for the document

Version	Date	Additions/Modifications	Prepared/Revised by
1.0	09/09/2019	Initial Submission	Gopi Gunda
1.1	09/30/2019	Revised Submission based on DHS comments	Gopi Gunda

Table of Contents

1	Introduction	5
1.1	Deliverable Description	5
1.1.1	Frequency	5
1.1.2	Associated Requirements	5
1.2	Associated Deliverables	6
1.3	Deliverable Acceptance Criteria	6
1.4	Deliverable Review and Approval	7
1.4.1	Deliverable Walkthrough	7
1.4.2	Review and Approval Stakeholder	7
2	Structure	8
2.1	Structure	8
2.2	Purpose	8
3	Technical Design Overview	9
3.1	Database Design	9
3.1.1	Database Overview	9
3.1.2	Data Models	10
3.1.2.1	Conceptual Data Model	10
3.1.2.2	Worker Portal	10
3.1.2.3	Citizen Portal	12
3.1.2.4	Framework	13
3.1.2.5	Reporting	13
3.1.2.6	Interfaces	13
3.1.2.7	Logical Data Model	14
3.1.2.8	Physical Data Model	14
3.1.2.9	Logical to Physical Model Transformation	15
3.1.2.10	Entities	15
3.1.2.11	Attributes	15
3.1.2.12	Relationships	15
3.1.2.13	Entity Relationship Diagram (ERD)	15
3.1.2.14	Data Flow Diagrams	16
3.2	Data Dictionary	16
3.3	Reference Table Data	17
3.4	Coding and Configuration Standards	17
3.4.1	ARIES JAVA-JSP Standards	17
3.4.2	ARIES Batch Standards	39
3.4.3	ARIES ETL Standards	40
3.4.4	ARIES Code Review Checklist	44
3.5	COTS Installation and Configurations	48
3.5.1	Install WebLogic Server	48
3.5.1.1	Introduction	48
3.5.1.2	Create WebLogic Domain	53
3.5.2	Oracle Policy Automation Deployment	61
3.5.2.1	Create a staging directory	61
3.5.3	OpenText Extream Communication Server Setup	67
3.5.3.1	Install WAS on Linux Server	67
3.5.3.2	Communication Server Installation on Linux Server	67
3.5.3.3	Install Postgres using Bootstrap Script	67
3.5.3.4	Install strs and install cert using Bootstrap Script	68
3.5.3.5	Install OTDS on WAS	70
3.5.3.6	Configure local proxy using Bootstrap Script	73
3.5.3.7	Create Multi-tenant users using Bootstrap Script	74
3.5.3.8	Create Tenant users using Bootstrap Script	75
3.5.3.9	Configure Management Gateway using Bootstrap Script	77
3.5.3.10	Create Tenant connection profiles and database using Bootstrap	79
3.5.3.11	Create Domain and repositories using Bootstrap Script	81
3.5.3.12	Post Installation Configuration	82
3.5.3.13	SSL Configuration on WebSphere	84
3.5.4	SonarQube Installation Instructions	86

3.5.4.1	Installation Overview	86
3.5.4.2	SonarQube Installation and Configuration	87
3.5.4.3	SonarQube Application and Configuration	88
3.5.4.4	Update Maven	91
3.5.4.5	Run an Analysis	92
3.5.5	WebSphere Application Installation	92
3.5.5.1	Create Deployment Manager Profile	92
3.5.5.2	Create 1 st Node Profile	104
3.5.5.3	Create New Application Server	124
3.5.5.4	Create 2 nd Node profile	128
3.5.5.5	Create New Application Server on Node01	131
3.5.5.6	Create a New Cluster	137
3.5.5.7	Cluster Configuration	140
3.5.6	IBM HTTP Server Installation Instructions	148
3.5.6.1	IBM Installation Manager Instructions	148
3.5.6.2	Install IBM HTTP Server for WebSphere Application Instructions	152
3.5.6.3	Install Web Server Plug-ins for IBM WebSphere Application Instructions	159
3.5.7	Cognos Installation and Configuration	166
3.5.7.1	Prerequisite Tasks	166
3.5.7.2	Installing the Cognos App and Content Server	169
3.5.7.3	Creating and Connecting to the Data Store	174
3.5.8	FishEye and Crucible Installation and Configuration	177
3.5.8.1	Prerequisite Tasks and Installation	177
3.5.8.2	Validations	179
3.5.9	IBM DB2 Product Installation	180
3.5.10	Informatica Powercenter Extract Transform Load (ETL)	182
3.5.11	Informatica Data Quality	199
3.5.12	Informatica Master Data Management (MDM)	200
3.6	Batch Scheduling/Execution	237
3.7	Batch Run Book	237
4	Roles and Responsibilities	238
5	Requirements Validation & Requirements Traceability Matrix	239
6	Acronyms	242