

COMMONWEALTH OF PENNSYLVANIA HEALTH & HUMAN SERVICES DELIVERY CENTER

INFORMATION TECHNOLOGY PROCEDURE

Name of Procedure: Architecture Review Board (ARB) Process	Number: PRO-EASS001
Domain: Business	Category: Architecture Review Board
Date Issued: 4-8-2009	Issued by Direction Of:
Date Revised: 09-09-2022	Health & Human Services Delivery Center

Abstract:

This Procedure explains the why, when and how to conduct Architecture Review Board (ARB) meetings that support the Departments of Health (DOH), Human Services (DHS), Aging (PDA), Drug and Alcohol Programs (DDAP) and Military and Veterans Affairs (DMVA) business applications.

General:

The Health and Human Services Delivery Center (HHSDC) Architecture Review Board (ARB) process provides a series of overviews for domain leads and core IT staff to become familiar with the architectural and technical implications of upcoming application releases.

The purpose of the ARB is to review proposed changes to the overall technical architecture of the IT Enterprise and ensure that the technical direction of new systems or changes to existing systems are in alignment with the HHSDC IT enterprise and well communicated across the business enterprise.

Goals

- Ensure that the project's overall technical direction is in alignment with HHSDC's architectural direction,
- Decrease design time by using pre-existing enterprise services or business processes that have been previously approved and designed,
- Decrease support costs by using the same solution across multiple projects,
- Decrease machine resource consumption by leveraging economies of scale and
- Increase Return on Investment.

ARB Outcomes

- Action items will be assigned to project/technical staff.

- Logistical and design assistance will be provided by board members.
- All presentation materials and notes will be posted to SharePoint for future reference.

Procedure:

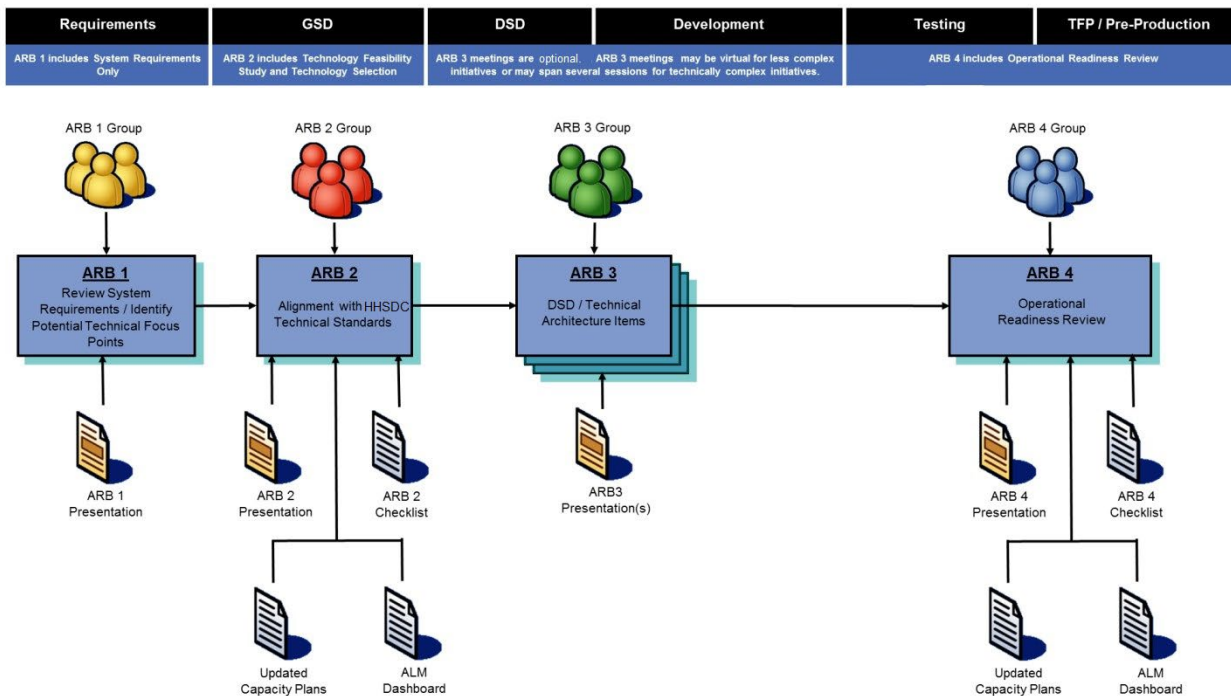
ARB Process Overview

The ARB process has 4 distinct review steps as represented in Figure 1. All are mandatory except ARB 3; however, for smaller Work Orders, ARB 1 and 2 are permitted to be combined and/or completed offline. An offline ARB involves ARB members reviewing the documents posted in docushare and submitting a response to the email announcing the offline ARB indicating no comment or their domain's comments.

For new SaaS implementations ARBs are needed, but not for minor releases. SaaS enhancements that are significant need to present ARBs.

Figure 1 – ARB Process Visual Overview

Figure 1 illustrates where the ARB meetings fall with respect to the phases of the system development lifecycle (SDLC) which are indicated along the top of the figure. The different colored ARB review groups represent that the ARB review teams for each of these meetings may be different due to the nature of the initiative, although there are regular HHSDC staff who participate in all ARB meetings throughout the SDLC. It can be derived from the diagram that the ARB 2 and ARB 4 meetings are the most preparation intensive. Also note that the materials for the ARB 4 meetings are the same as ARB 2 meetings providing the opportunity to reuse the same materials.



Application Lifecycle Management Dashboard Template for COTS and SaaS Applications

In ARB 2 and ARB 4, the Application Lifecycle Management (ALM) Dashboard Template is not required for COTS and SaaS applications. The Application Lifecycle Management (ALM) Dashboard Template [Application Lifecycle Management Template.xlsx \(sharepoint.com\)](#) is geared towards tools and

technologies that are geared for custom development. However, the HHSDC Application Lifecycle Management (ALM) Baseline [HHS DC ALM Baseline.xlsx \(sharepoint.com\)](#) must be reviewed by the COTS or SaaS vendors, so they are aware of HHSDC software products and versions and if their solution is compatible.

ARB 1

ARB 1s are presented at the end of the requirements phase. The ARB 1 meeting represents the first opportunity to present the system requirements to a wide HHSDC audience. HHSDC can then validate that system requirements align with the stated business imperatives driving the initiative and make early assessments of technical impacts that might stem from the initiative.

An ARB 1 meeting is usually 1 hour in length and the only required input material for this meeting is an ARB 1 presentation. The main elements of an ARB 1 presentation are:

- Background
- Scope and Initiative Overview
- System Requirements
- Architecturally Significant Use Cases
- Known Reporting, Batch, or Security Implications
- Other Important Non-Functional Requirements
- Timeline

More than any other ARB meeting, attendance of line-of-business leadership and HHSDC Business Relationship Managers is critical to a successful ARB 1 meeting. Every effort should be made to ensure that business and HHSDC Business Relationship Managers are in attendance at ARB 1 meetings to validate that the system requirements are in alignment with the initiative goals.

ARB 2

ARB 2 meetings are presented during the General Systems Design (GSD). The ARB 2 meeting could be considered the most important of the ARB meetings. The fact that it occurs during the GSD phase means that it's still early enough to impact the final design. During the GSD phase, business and system requirements have been collected, allowing for a much more in-depth conversation to occur than during the ARB 1 meeting.

The ARB 2 meeting is usually 1 hour in length. The input materials for the meeting are the ARB powerpoint presentation, the ARB checklist with the ARB 2 column filled in, an up-to-date ALM dashboard that reflects any changes by virtue of the release in question (if no changes, this is optional), and production and non-production capacity plans.

ARB 2 documents needed are:

- ARB Presentation Template
- ARB Compliance Checklist for SaaS COTS and Custom Applications Template
- Capacity Plan
- Application Lifecycle Management (ALM) Template ***Note not required for COTS, SaaS. It is beneficial for vendor to review the Application Lifecycle Management (ALM) Baseline to be aware of software used in HHSDC.**

These documents have standard templates that need to be filled in and submitted prior to the ARB meeting (see [Architecture Review Board \(sharepoint.com\)](#)). The following elements are standard across most ARB 2 presentations:

- Background
- Initiative Overview

- Architecturally Significant Use Cases
- Services
- Interfaces
- Conversion
- Batch
- Archive / Purge
- Disaster Recovery
- Security
- Service Now Configuration Parameters (If no CSS, CI and Assignment Group exists, contact ITSM Administrator for HHSDC)
- Testing and Validation
- Capacity Highlights
- Next Steps
- Implementation Timelines

It should be noted that not all of these elements are required for an ARB 2 meeting. More or less detail may be required based upon the scope of the initiative and how its architecture aligns with the elements being highlighted in the presentation.

In addition, the ARB 2 meeting is the point at which initial feasibility study results are presented should new technologies be needed for the initiative in question. The feasibility study introduces software that is new to one of HHSDC's domains or expounds upon how existing software will be used in new ways. The feasibility study is not a required ARB 2 element and is only present when significant new technologies are being introduced and the HHSDC technology evaluation process needs to be invoked.

ARB 3

ARB 3s are optional and used when

- there are design decisions that are still open at the time of the ARB 2,
- if a large release such as CIS IR or
- to serve as a refresher if a considerable amount of time has elapsed since the ARB2 (such as CHIP IT transition to eCIS).

ARB 3 meetings may be virtual or offline, with documents being submitted and reviewed by the team without a formal meeting for initiatives that are less technically complex. The HHSDC CTO (Chief Technology Officer) makes the decision whether a virtual or offline meeting is permitted based upon the complexity of the work order(s) and technologies involved. Larger initiatives, especially those introducing new and complex technologies, sometimes require more than one physical ARB 3 meeting.

The ARB 3 PowerPoint presentation is the only required element of the ARB 3. The following elements are standard across most ARB 3 presentations:

- Initiative Overview
- Architecture Details
- Results of any POCs conducted
- Key DSD Considerations (Domain-Based DSD Highlights)
- Next Steps

ARB 4

ARB 4 meetings are presented the Wednesday or Thursday prior to or the week of implementation and have the **GO/ No Go** vote. ARB 4s most closely resemble ARB 2 meetings in their content and form. Due to the timing of the ARB 4 meetings, they are focused on pre-operational readiness preparations; whereas, ARB 2 meetings are focused on discussing and reviewing design considerations. ARB 4 meetings have the same material inputs as ARB 2 meetings and are expected to have been updated to reflect changes or updates that occurred between the ARB 2 and ARB 4 meetings.

ARB 4 documents needed are:

- ARB Presentation Template
- ARB Compliance Checklist for SaaS COTS and Custom Applications Template
- Capacity Plan
- Application Lifecycle Management (ALM) Template ***Note not required for COTS, SaaS. It is beneficial for vendor to review the Application Lifecycle Management (ALM) Baseline to be aware of software used in HHSDC**

Items such as testing, validation, capacity, and implementation timelines are the main focus for this meeting.

One specific ARB 4 element is an operational readiness review which includes a system checklist and a business checklist. These checklists are included in the ARB 4 deck for HHSDC and program office participants' endorsement. The checklist includes the following elements:

- Performance Testing
- Vulnerability Testing
- UAT Testing
- Outstanding TFS Defects From Testing
- Batch Schedule and Manual Updated
- Playbook / Deployment Instructions
- Final User Roles / Account Signoffs
- Health Checks and Business Metrics
- Operational Preparations and Field Support
- Service Now Configuration Parameters (Specify CSS, CI and Assignment Group)

The Application Lifecycle Management (ALM) Template is not required for COTS, SaaS. It is beneficial for vendor to review the Application Lifecycle Management (ALM) Baseline to be aware of software used in HHSDC.

TRT (Technical Review Team)

The purpose of a TRT meeting is for the Domain Leads and Subject Matter Experts (SMEs) to review a potential new product that is either needed or being proposed that will have an impact across the technical domains. During a TRT meeting, the presenter should explain what the need is as well as possible solutions. The results of the TRT meeting will be a decision as to whether to proceed or not with investigating or procuring the new product.

ARB Process Guidance

This section provides more detailed guidance around the ARB process, including how to schedule ARB meetings and references to templates and other materials you will need for preparation of an ARB meeting.

In general, the Project team is responsible for providing the documents and presenting the meeting. HHSDC domain leads are expected to attend all the scheduled ARB meetings unless there is a simultaneously occurring emergency. Project leads, developer leads, and program office staff also attend.

The HHSDC Domains represent the following areas of HHSDC:

Security: Unified security for applications, Enterprise-wide Security Policies

Network: Data and voice. Public access and business partner access

Knowledge Management: Enterprise Content Management, GIS, Business Intelligence

Platform: Hardware / Software

Integration and Middleware: Common integration architecture, Interface protocols

Data: Data Base, Metadata, Data Dictionary, Data Definitions

Operations and Support: Capacity Planning, Recovery Planning, Service Levels

Application: Reusable applications/business processes, Browser integration

ARB Roles / Responsibilities

- Project Manager
 - Develop project plan that includes ARB tasks and ensures correct submission of ARB materials
 - Work with the vendor and project team in preparing ARB presentation documents
 - Initiate ARB review by contacting ARB coordinator (through the HHSDC Technology Services Office (TSO) office)
 - The project manager and program office sponsor must sign-off on the operational readiness from the business perspective before implementation
 - Attends ARB for their project and ensures completion of any Action Items resulting from the ARBs
- Business Relationship Managers
 - Know the details of the ARB initiative for their program area
 - Assist in coordinating completion of ARB documents with the vendor, project manager and Solution Management
 - Attends ARB for their program area and follow up on any assigned Action Items resulting from the ARBs
- Project Team
 - Work with vendor and team members in preparing ARB presentation documents
 - Work as a team in presenting the ARB PowerPoint detailing the business process change
 - Identify architectural impacts and present proposed solution
 - Work with the ARB team to finalize technical architecture

- Communicate jointly defined solution to the project team
- Follow up on any assigned Action Items resulting from the ARBs
- Verify jointly defined solution is implemented throughout development
- ARB team
 - Attend weekly meetings
 - Provide subject matter expertise / experience
 - Communicate presentation information to peers within HHSDC
 - Work with presenting team to determine / validate architectural direction
 - Support presenting team efforts once development commences
 - Follow up on any assigned Action Items resulting from the ARBs
 - HHSDC must sign-off on the system readiness from the technical perspective before implementation
- Domain Leads
 - Review ARB documents
 - Attend all ARBs or assign a designee
 - Provide expertise pertaining to their domain
 - Follow up on any assigned Action Items resulting from the ARBs

Calendar and Scheduling

HHSDC leadership has reserved Timeslots as listed below on Wednesday and Thursday for ARB meetings. This includes ARB types 1, 2, 3, 4 as well as the TRT (Technical Review Team) group. The reserved meeting slots fall on the following times each week unless holidays or other events preclude holding the ARB meeting for a particular week. Most meetings are 1 hour in length although complex discussions may need more time. It is also possible to schedule a 30 minute ARB meeting for those projects that do not need much feedback or discussion. ARB 4 Operational Readiness meetings are recommended on Wednesdays whenever possible to allow for resolving any last minute concerns.

- **Wednesday, 10:30am – 12:00 Noon (Any mix of 30 minute meetings to 1.5 hour meetings)**
- **Thursday, 10:00am – 12:00 Noon (Usually two 1 hour meetings or several 30 minute meetings)**
- **Wednesday 3:00pm, Thursday 9:00am, 10:00am or 1:00pm depending on staff availability and other preset meetings.**

Figure 2 provides a high-level overview of the ARB preparation activities from an application team vantage point. The remainder of this section breaks down the timeline further; explaining ARB activities and post-ARB activities and detailing what is involved in each step of the process.

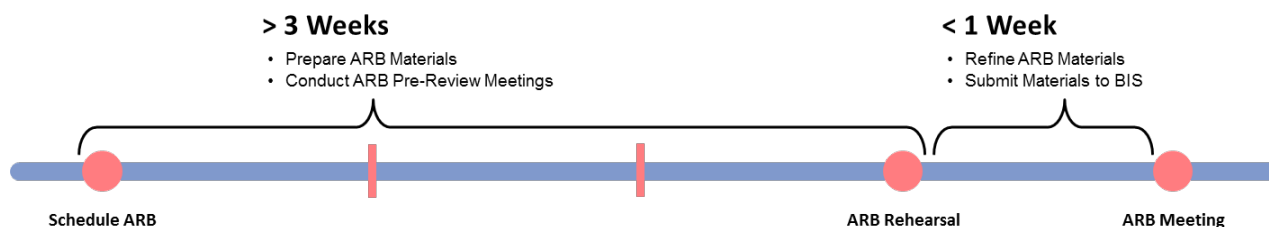


Figure 2 – ARB Preparation Timeline

Scheduling the ARB Meeting (> 3 Weeks Prior to ARB Meeting)

Scheduling an ARB meeting is the first step in the lifecycle of an ARB event. This step should occur 3 weeks or more prior to the date of the anticipated ARB meeting to allow adequate time for preparation. In the case of an expedited initiative, an ARB meeting can be scheduled the day before the meeting date if the calendar is open and the team and materials are ready. There are several key activities that occur during this step. These activities are enumerated and described below:

- **Find an open calendar slot** – The ARB calendar is available on the CWOPA network and is accessible to all HHSDC CWOPA users. The calendar is on HHS-DC SharePoint at: [ARB Calendar](#)
- Teams looking to schedule an ARB meeting should check the calendar and note a primary and alternate ARB meeting date / time. Submit the date/time requested along with the ARB meeting number, and the name of the Initiative or Work Order to the ARB Coordinator (currently Hala Auchey at Deloitte hauchey@deloitte.com or Patty Gillingham pgillingha@pa.gov, Kurt Grauf kgrauf@pa.gov, Scott Kister skister@pa.gov, or Jess Negley jnegley@pa.gov at HHSDC.

Final ARB Documents and Submission

Final ARB documents need submitted no later than 1 day before the ARB meeting. The materials submitted by the application team are uploaded by HHSDC into SharePoint. ARB documents are organized by Date: Year, Month, Day at [HHSDC Technology Services Office - ARB Documents - All Documents \(sharepoint.com\)](#)

ARB Meeting Activities

During the ARB meeting, materials will be projected onto a screen if held in a conference room. Under most circumstances there is no need to bring hand-out materials. See above link for ARB documents.

If the meeting is held virtually, the ARB will be in Microsoft Teams where the presenter shares their screen to display and explain the documents.

HHSDC TSO records Action Items and attendance at the ARB meetings. Time permitting, the Action Items are recapped at the end of the meeting. In all cases, the Action Items (if any) and attendance are made available electronically on SharePoint after the meeting in the same location as the ARB documents. It is up to the participants to follow up on the Action Items recorded in ARB Results that fall under their responsibility.

Post-ARB Activities

Post-ARB activities include following up on the action items, questions and concerns in the meeting minutes. The application teams must be sure all are addressed before the next ARB meeting occurs.

Templates and Example Materials

Templates and example materials for the ARB process including the *ARB Presentation Template* (PowerPoint), the *ARB Compliance Checklist* and the template for the production and non-production *Quarterly Capacity Plans* can be found on the HHSDC ARB Domain site at: [ARB Domain](#)

Frequently Asked Questions

The final section of this document presents a series of frequently asked questions (FAQ) and provides answers and guidance to address and assist with understanding the ARB process.

Question: Has HHSDC published any formal guidance and standards on the ARB process?

Answer: The formal documentation of the Architecture Review Board (ARB) Process can be found on the HHSDC ARB Domain webpage at: [ARB Domain](#) This webpage has been referenced throughout this document.

Question: Who attends the ARB meetings?

Answer: Attendance at ARB meetings varies by initiative and ARB type, and roles and responsibilities of ARB attendees. Typically, attendees will be:

- Architecture Review Board Chair (HHS TSO CTO) Jon Arnold
- Architecture Review Board Vice Chair (HHS TSO Service Delivery Director) Josh Thomas
- Architecture Review Board Team Members (Domain Leads – HHSDC) as well as domain SMEs
- Application / Project Managers
- Program Office Sponsor
- Business Relationship Managers

The TSO Chair and Vice Chair and domain leads make a concerted effort to attend each of these meetings unless there are other circumstances that prohibit this. In this case, a designee is to be assigned. The application teams ensure their application manager, application architect and track/initiative lead are present at all ARB meetings as well as the presence of program office sponsors, business relationship managers and subject matter experts (SMEs).

Question: Can ARB 1 and ARB 2 meetings be combined into a single ARB 1 & 2 meeting?

Answer: There are some work orders that are of a completely technical nature and have few or no business impacts where combined ARB 1 and ARB 2 meetings will be considered. However, this must be approved by the HHSDC CTO before they are submitted for scheduling.

Question: Is there any possibility of doing multiple ARB meetings of a single type – e.g., 2 ARB 1 meetings?

Answer: ARB 3 meetings can occur more than one time for a single initiative, especially for more technically complex initiatives. ARB 1, 2, and 4 meetings very rarely have more than one occurrence for a single work order.

Question: Are conference calls permissible for ARB meetings?

Answer: ARB meetings held in a conference room - In general, HHSDC advises against conference call participation for key meeting participants. Information from informal communication and side conversations is lost by not being present in the room at the time of the ARB meeting. However, HHSDC recognizes that it may be difficult for those who have to travel to the building and will allow conference call participation in those circumstances. The conference call must be configured by the project team, not the ARB Coordinator, since the project team will be familiar with who needs to receive the conference call invitation.

Working remotely – as most people will be working remotely, conference calls are permitted for ARBs.

Virtual ARBs - ARBs held virtually will be in Microsoft Teams. All participants are expected to attend to view the presentation.

Refresh Schedule:

All procedures and referenced documentation identified in this document will be subject to review and possible revision annually or upon request by the HHS Delivery Center Domain Leads.

Procedure Revision Log:

Change Date	Version	Change Description	Author and Organization
04/08/2009	1.0	Document Creation	Thomas Beck
05/10/2012	1.1	1) focus on <i>system requirements</i> as part of the ARB 1 review with <i>business requirements</i> being handled with the lot 1 – 5 vendors outside of the ARB structure; (2) shift in ARB 4 coverage to include pre-production validations and operational readiness activities; and (3) removal of the TRT section of this document; yielding to HHSDC standard <i>STD-EASS006 COTS, Transfer Technologies and Emerging Technology Evaluation & Selection</i> .	Thomas Beck
05/18/2015	1.2	Updated changes to the ARB process, corrected URL links and Agency name. Additional information added for clarity. Various grammar mistakes corrected.	Lisa Bear
09/24/2021	1.3	New Organization HHSDC, content updated.	P. Gillingham
11/22/2021	1.4	ARB details updated.	P. Gillingham
04/26/2022	1.5	ARB Schedule updated.	P. Gillingham
05/06/2022	1.6	ARB Schedule updated.	P. Gillingham

09/09/2022	1.7	ARB Schedule updated.	P. Gillingham
------------	-----	-----------------------	---------------