

[Redacted]

From:
Sent:
To:

[Redacted]

Friday, February 12, 2016 11:55 AM

[Redacted]

Subject: IMPORTANT: Weekly ACES Update --- UNCLASSIFIED

Classification: UNCLASSIFIED

=====

Advanced Collaboration Enterprise Services (ACES)

Creating a Common Operating Environment (COE) for MOD Collaboration Enterprise

This is a **weekly** status update on ACES for all relevant stakeholders. **Highlights/Changes in Red**

[Redacted]



=====
Classification: UNCLASSIFIED

[REDACTED]

From:
Sent:
To:

[REDACTED]

Thursday, May 12, 2016 1:39 PM

[REDACTED]

Subject: IMPORTANT: Weekly ACES Update --- UNCLASSIFIED
Attachments: MOD MMG Update ACES Deployment 11 May 16.pdf

Classification: UNCLASSIFIED

=====

Advanced Collaboration Enterprise Services (ACES)

Creating a Common Operating Environment (COE) for MOD Collaboration Enterprise

This is a **weekly** status update on ACES for all relevant stakeholders. Highlights/Changes in **Red**



=====
Classification: UNCLASSIFIED

[Redacted]

From:
Sent:
To:

[Redacted]

Tuesday, August 09, 2016 3:03 PM

Cc:

[Redacted]

Subject:

Mission Opportunity 2016-003: Advanced Collaboration Enterprise Services (ACES) - FULL
DEMO AVAILABLE -- UNCLASSIFIED

Classification: UNCLASSIFIED

=====

All,

Please be aware that a full ACES capabilities demo will be taking place this Friday (August 12th) at the ACES Lab in Arlington from 1 to 3 pm.

If you are interesting in attending, please contact [Redacted] on the TO Line to confirm attendance and obtain meeting details.

Cheers,

[Redacted]



=====
Classification: UNCLASSIFIED

[redacted]

From: [redacted]
Sent: Tuesday, January 05, 2016 8:56 AM
To: [redacted]
Cc: [redacted]
Subject: MOD - ACES #200233 - IATT approval --- UNCLASSIFIED

Classification: UNCLASSIFIED

[redacted] and [redacted]

Request your approval of [redacted] ACES [redacted] so they can continue to test and complete the RMF steps. It should be in the DAO's queue [redacted].

FYI - We have an ACES status meeting from 3-4pm ([redacted] today as well, looks as though neither of you were not invited to.

I was hoping the IATT could be approved before the meeting if possible.

Thank you,

[redacted]

Classification: UNCLASSIFIED

[REDACTED]

From: [REDACTED]
Sent: Thursday, October 15, 2015 11:33 AM
To: [REDACTED]
Subject: Project [REDACTED] / MOD Advanced Collaboration Enterprise Services in Your DAO Queue ---
UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

[REDACTED]

Just letting you know that RMF Steps 1 & 2 have been closed for Xacta project [REDACTED] [ACES / Advanced Collaboration Enterprise Services]. The IATT Task request is currently in your queue.

Thank you,

[REDACTED]

=====
Classification: UNCLASSIFIED//~~FOUO~~

[redacted]
From: [redacted]
Sent: Tuesday, March 08, 2016 11:43 AM
To: [redacted]
Cc: [redacted]
Subject: RE: [redacted] ACES Reapprove fix Xacta --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

Thanks [redacted]

From: [redacted]
Sent: Tuesday, March 08, 2016 11:41 AM
To: [redacted]
Cc: [redacted]
Subject: RE: [redacted] ACES Reapprove fix Xacta --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

Done, but the line you pasted below shows it was approved already, that is all you need.

[redacted]
From: [redacted]
Sent: Tuesday, March 08, 2016 11:21 AM
To: [redacted]
Cc: [redacted]
Subject: [redacted] ACES Reapprove fix Xacta --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

[redacted]
[redacted]
Can you correct the IATT task back to DAO approved? Screen grab below.

1/6/2016 12:55:25 - [redacted] - DAO Rep Alt

Workflow was modified

Approve

1/5/2016 10:40:31 - [redacted] - DAO (Gov Only)

Approved

● **Recommend: APPROVE**

12/29/2015 11:23:42 - [redacted] - DAO Rep

Thank you,

=====
Classification: UNCLASSIFIED//~~FOUO~~

=====
Classification: UNCLASSIFIED//~~FOUO~~

=====
Classification: UNCLASSIFIED//~~FOUO~~

[redacted]
From:
Sent:
To:

[redacted]
Friday, June 10, 2016 11:08 AM

Cc:

Subject:

RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

Hi [redacted] (including the NROC Directors as well in the email chain),

This looks good.

One important point of clarification for the DAO...since [redacted] has agreed to receive the SAR on [redacted]
[redacted] we want to make sure that the
ATO approval from the DAO occurs on [redacted] as well.

This gives the NROC (and MS&O) a concrete timeline to deploy the rest of ACES into the NROC and NRO Situation Room
starting on 5 July.

[redacted]..thoughts?

Best,

[redacted]
From:

Sent: Friday, June 10, 2016 10:44 AM

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

Hi All,

Following is the agreement we came to today for ACES [redacted]

[redacted]

Please correct me if I misstated something. Thanks!

[redacted]

From: [redacted]

Sent: Friday, June 10, 2016 9:16 AM

[redacted]

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

Hi [redacted]

Is ACES a COI asset? I was wondering if it makes sense to assign another SCA to either assist you, or take it over? My only concern is the time it will take another SCA to come up to speed on this asset.
Thanks.

[redacted]

How quickly can we get ACES through TSB? It is an asset that has a program set deadline. Asset [redacted] Thanks!

[redacted]

Let me know your thoughts on what I proposed in the first paragraph to [redacted] I have cc'd all the alternate SCAs listed on this asset. Thanks!

[redacted]

From: [redacted]

Sent: Tuesday, June 07, 2016 12:57 PM

To: [redacted]

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

[Redacted]

[Redacted]

[Redacted]

(U) If you have any other questions please let me know.

v/r

[Redacted]

From: [Redacted]

Sent: Tuesday, June 07, 2016 11:53 AM

To: [Redacted]

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

Hi [Redacted]

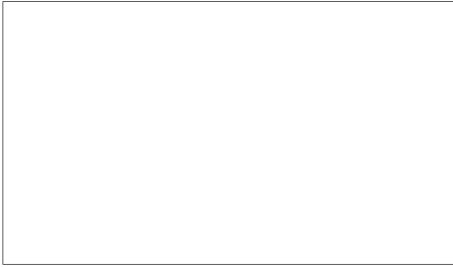
Just wanted to keep this between us...

[Redacted]

[Redacted]

How can we shorten this to get as close to [Redacted] for an ATO as possible?

Best,



From: 

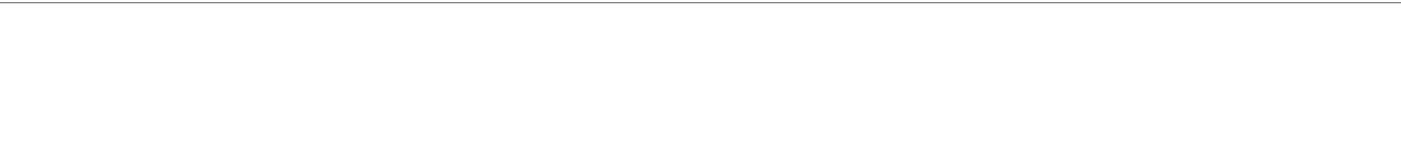
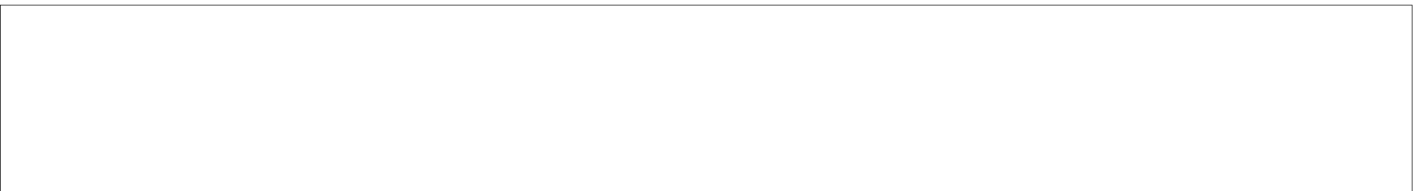
Sent: Tuesday, June 07, 2016 10:59 AM



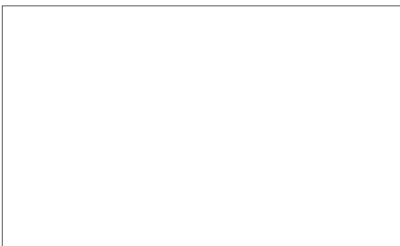
Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====



v/r



From: 

Sent: Monday, June 06, 2016 2:46 PM



[REDACTED]

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

Hi [REDACTED]

Thanks for the update. Based on the [REDACTED] testable items within Xacta, what are the actual dates for the following:

- 1) ARR
- 2) SAT
- 3) SAR/ATO

We have to put concrete markers in the calendar so that we can plan/execute at all the deployment sites. Based on our last meeting on 14 April, we agreed to a worst case scenario of [REDACTED] to have an ATO w/ POAMs in hand. That gives us [REDACTED] days to hit this deadline.

Are we going to make it? If not, we need to be able to justify this slip.

Best,

[REDACTED]

From: [REDACTED]

Sent: Thursday, June 02, 2016 7:24 AM

[REDACTED]

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

[REDACTED]

(U//~~FOUO~~) I am currently trying to get your controls implementation to export from Xacta, I am at 8 mins and counting. I have not seen anything yet that is a problem that would make it so we could not move forward with an ARR. I did notice that the Compliance self-test document in Xacta is [REDACTED] pages long with a default of [REDACTED] lines per page. In contrast to this [REDACTED] has only [REDACTED] pages at [REDACTED] lines per page.

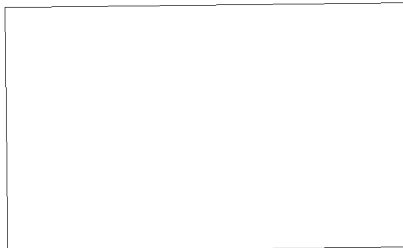
(U//~~FOUO~~) Why this poses a problem is that, the information entered in Compliance Self-test filters into my Independent testing task when it opens and then down into Security Assessment>>Analyze Controls tasks. So all of

those items in the Compliance Self-test and Independent Testing tasks will have to be answered in the Security Assessment task. That may be at its worst in upwards of [] items that have to have a risk rating assigned and information verified. This information is then passed over to the DAO-Rep in the POAM Monitoring task. The DAO-Rep then has to answer each and every one of these as either a POAM item or reject it.

(U//~~FOUO~~) I telling you this because all of this takes time in Xacta and will delay the development of SAR and the completion of the ATO w/POAM to get the program to step 6. So while I am at the off-site for the rest of today and out tomorrow. The program folks may want to take a careful look at what they marked for testing to see if there is anything they can take out. So when we go into the later steps it does not take as long to get through them.

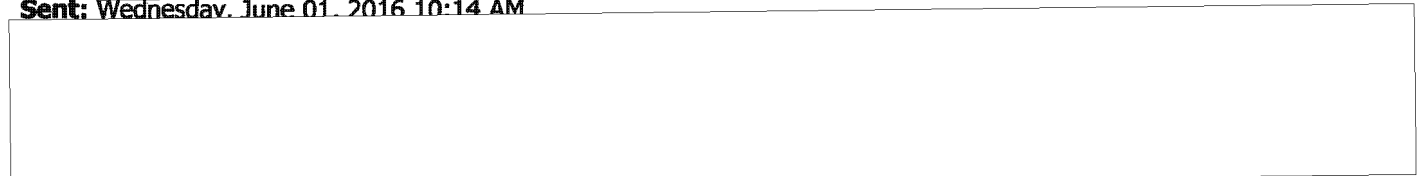
(U//~~FOUO~~) We can discuss the actual test cases as part of the ARR just to make sure everyone has a complete understanding. If you have any questions please let me know.

v/r



From:

Sent: Wednesday, June 01, 2016 10:14 AM



Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED

Classification: UNCLASSIFIED

=====

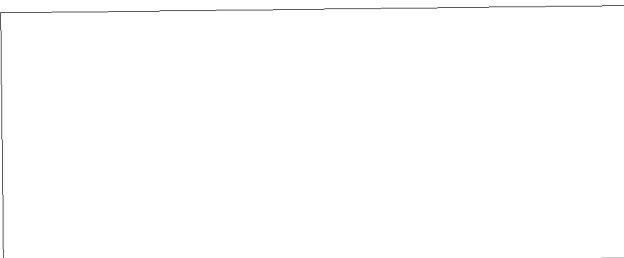
Hi []

Just following-up... We are nearing the end of three weeks this week for the document review. We haven't received any questions, so am I to assume everything is looking good?

Will you be done this week and can we go ahead and schedule the SAT for next week?

Thank you!

Best,



From: [redacted]

Sent: Monday, May 23, 2016 12:52 PM

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED

Classification: UNCLASSIFIED

=====

[redacted]

I am in the process of reviewing your documents and it will take about three weeks to get through all of the information and get questions answered as they come.

v/r

From: [redacted]

Sent: Friday, May 20, 2016 9:36 AM

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED

Classification: UNCLASSIFIED

=====

Hi [redacted]

Just following-up....have you had a chance to look at your calendar and find a date to review all the materials as well as schedule the SAT?

Best,

From: [redacted]

Sent: Tuesday, May 17, 2016 10:39 AM

Subject: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED

Classification: UNCLASSIFIED

Hi [redacted]

We completed the ACES FAT yesterday! It took approximately four (4) hours to complete the functional testing and the CTP. We are ready to now complete the SAT! (I'm excited if you can't tell...)

Based on the length of time required for the FAT, I suspect we can complete the SAT in less than a day. What do we need to do to get this on the calendar as soon as possible?

What do we need to do in order to be ready for the SAT? Where do we ship the equipment (through MS&O) and set up the server, one operator workstation, etc.?

Thank you.

Best,

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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

=====
Classification: UNCLASSIFIED/~~FOUO~~

[redacted]
From:
Sent:
To:
Cc:

[redacted]
Friday, June 10, 2016 11:06 AM

Subject:

RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

[redacted]
From:

Sent: Friday, June 10, 2016 10:44 AM

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

Hi All,

Following is the agreement we came to today for ACES [redacted]

[Redacted]

Please correct me if I misstated something. Thanks!

[Redacted]

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Hi [Redacted]

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[Redacted]

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Let me know your thoughts on what I proposed in the first paragraph to [Redacted] I have cc'd all the alternate SCAs listed on this asset. Thanks!

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Sent: Tuesday, June 07, 2016 12:57 PM

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Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

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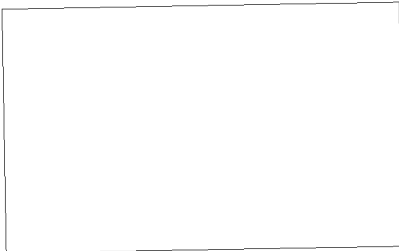
[Redacted]

(U) Even if we tested tomorrow there would be no way to get an ATO by next Thursday. The times are as soon as I am available. Coordinating 3 test events at this time including yours. I am getting you in for ARR as soon as is possible. I can go into testing as soon as the day after ARR, if your team is ready.

(U) Because of the size of the information that has filtered down into Compliance Self-test and will therefore be present in the later tasks I work in Step 4. It is going to take me that long to go through and get the correct information into the POAM. The length of time it takes me to do the SAR is relative to how well the testing goes. The better the testing the quicker I can produce a SAR. If there are items that fail or go wrong during testing then I will need to get further information from the program before moving the project into Step 5 for the DAO-Rep and DAO to work.

(U) If you have any other questions please let me know.

v/r



From: [Redacted]
Sent: Tuesday, June 07, 2016 11:53 AM
To: [Redacted]
Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

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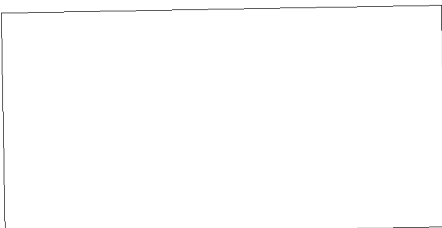
Hi [Redacted]

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Best,



[Redacted]

From: [Redacted]

Sent: Tuesday, June 07, 2016 10:59 AM

[Redacted]

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

[Redacted]

(U) We can do ARR 22 Jun and determine a test day/time before that meeting convenes.

(U) We do not have any requirement to do the meeting face-to-face with your project. So we can do it virtually over the phone on a conference call. Just need to make sure that you are available and present at the meeting or another Government rep of your choice, as long as the program has a government rep on line for the meeting. If Government representation for the program does not dial/show-up then the ARR is marked as a failure for non-Government participation.

(U) The only part that will slow us down is getting through the 8 pages of test items during the independent testing and security assessment tasks. I have [Redacted] once testing is completed to compile my report and get the Liens in for inclusion in the POAM. [Redacted]

[Redacted]

(U) Our office does not control the ATO completion that is the DAO's office. I am honestly not sure how long that is taking at present it would be better to get with the DAO-Rep to determine a time line.

v/r

[Redacted]

From: [Redacted]

Sent: Monday, June 06, 2016 2:46 PM

[Redacted]

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

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Hi [redacted]

Thanks for the update. Based on the [redacted] within Xacta, what are the actual dates for the following:

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[redacted]
Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED

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[redacted]
From:
Sent:
To:
Cc:

[redacted]
Friday, June 10, 2016 1:08 PM

Subject:

RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

I will do my best, but it also depends on the findings that come out of testing, what the reviewing DAO Rep [redacted]
[redacted] finds, and what POAM items will need to be addressed. You will know what is up because you will have to coordinate on the POAM.

BTW, I am out July 5-8, so we will either be done by 1 July or my boss will handle it.

Vr

From:

[redacted]
Sent: Friday, June 10, 2016 11:08 AM

Subject: RE: ACES - FAT Complete - SAT Scheduling --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

Hi [redacted] (including the NROC Directors as well in the email chain),

This looks good.

[redacted]
From: [redacted]
Sent: Wednesday, December 23, 2015 8:29 AM
To: [redacted]

Cc:
Subject: RE: ACES [redacted] DAO Rep concerns --- UNCLASSIFIED//~~FOUO~~
Signed By: [redacted]

Classification: UNCLASSIFIED//~~FOUO~~
=====

Hi [redacted]

Great notes -- Thank you!

Update: TSB, [redacted] confirmed yesterday that they will be able to test ACES on 29 December. Both the tester and [redacted] will be going to ACES in Arlington. [redacted] said that it won't be complete FAT testing due to the fact they don't currently have their CTP updated.

[redacted]
Please correct me if I misunderstood what you said at the Staff meeting yesterday. Thanks.

[redacted]
From: [redacted]
Sent: Tuesday, December 22, 2015 5:32 PM

[redacted]
Subject: RE: ACES [redacted] DAO Rep concerns --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

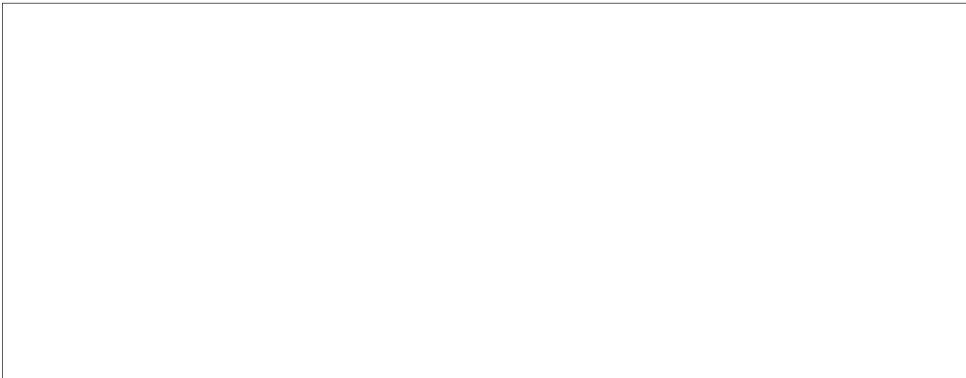
DAOs [redacted] lead?],

Here's the latest and the way ahead on MOD's ACES (Advanced Collaboration Enterprise Services / Project [redacted] effort:
[redacted]



It's 5:30 on Tuesday and it is quiet as a mouse here. I see is still working.

Thank you and good night,



From:
Sent: Monday, December 21, 2015 6:13 AM
To:

[redacted]
~~Subject: RE: SRT Minutes for ACES ---TOP SECRET//SI//TK//NOFORN~~

Classification: ~~TOP SECRET//SI//TK//NOFORN~~

Classified By: [redacted]

Derived From: NRO Launch IPG dated 20090202

Declassify On: 20401231

=====

[redacted]
(U//~~FOUO~~) I thought I uploaded the minutes but after checking XACTA is not there. [redacted]
[redacted]

FYI: My email and network drive data was completely deleted however; please see the SRT details below: [redacted]
was the DAO rep [redacted]
[redacted]

UNCLASSIFIED//~~FOUO~~

10 June 2015 SRT

(U//~~FOUO~~)
[redacted]

(U//~~FOUO~~)
[redacted]

(U//~~FOUO~~)
[redacted]

System connectivity: (U//~~FOUO~~) [redacted]

o Information Types: (U//~~FOUO~~) [redacted]

(U//~~FOUO~~)

C.3.5.8 System and Network Monitoring Information Type
D.1.1 Mission Information Type
during SRT)
C.2.8.12 General Information Type
SRT)

Summarized Categorization:

Final Categorization:

Risk Adjustments Justification:

(U//~~FOUO~~) Integrity: [redacted]

(U//~~FOUO~~) Availability: [redacted]

(U//~~FOUO~~) ACES consists primarily of a server and video switcher that allows analysts the ability to change the presentation view by manipulating pixel space on the monitor. ACES eliminates the need for multiple monitors to view multiple screens of data [redacted]

Additional connections or classification levels will require a new SRT considered an A&A relevant and REL will change.

V/R,

From: [redacted]

Sent: Monday, December 21, 2015 5:14 PM

To: [redacted]

Cc: [redacted]

Subject: RE: ACES [redacted] DAO Rep concerns --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

Appreciate the email, diagram updates, and questions. Good Job. As it stands keep pressing forward to get the ground truth. [redacted] will help with the CDS stuff and [redacted] can help cover as alternate. Feel free to pull in help when needed.

[redacted] is the DAO until we determine the CDS nature of this asset, at which point we'll let [redacted] decide if he should inherit.

A TEM is important to stop the conjecture, ask some pointed questions regarding the CDS intent, and determine what the goals/ milestones are for this assets mission.

I trust this is in good hands and you all can back brief me when I get back.

Cheers,

[Redacted]

From: [Redacted]
Sent: Monday, December 21, 2015 3:15 PM

Subject: ACES [Redacted] DAO Rep concerns --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

[Redacted]

Please see my modified network diagram (attached). I have modified this attachment from the version submitted in Xacta. I have attempted to clarify some questions I have and some confusion introduced by the diagram itself. This diagram came listed with [Redacted] connectivity this time (was not on the originals). I deleted the [Redacted] connections as I thought that was confusing. Please see if this makes sense and if my questions/comments in (RED, best I could do in paint) will help us move forward.

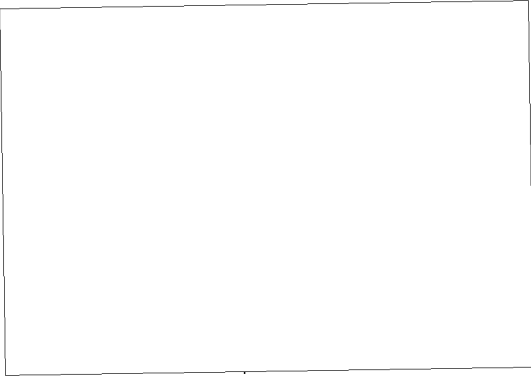
My concerns are:

[Redacted]

[Redacted]

I have also attached the version loaded in Xacta for reference, hope this helps. Please let me know you thoughts or pass on to the engineers to answer.

v/r



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Classification: UNCLASSIFIED//~~FOUO~~

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Classification: UNCLASSIFIED//~~FOUO~~

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Classification: UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED

[redacted]

How's it going? First time bugging you... Do you happen to have the meeting minutes or any other SRT documentation for ACES [redacted]. Looking for any REL info/coordination, list of stakeholders/attendees, and info types agreed to.

Thank you,

[redacted]

From: [redacted]
Sent: Friday, December 18, 2015 11:15 AM
To: [redacted]
Subject: FW: SRT Minutes for ACES --- UNCLASSIFIED

Classification: UNCLASSIFIED

FYI....

From: [redacted]
Sent: Thursday, December 17, 2015 4:14 PM
To: [redacted]
Subject: SRT Minutes for ACES --- UNCLASSIFIED

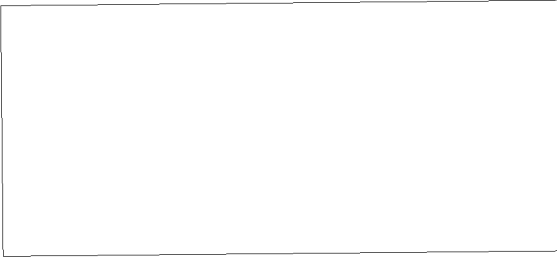
Classification: UNCLASSIFIED

Hi [redacted]

[redacted] was the DAO Rep for the ACES system, and we completed the SRT on [redacted]
[redacted] I never did see any minutes come out of the meeting. Is there an archive folder or any document library that may contain this document?

I figured its worth trying.

Thanks !



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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

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Classification: ~~TOP SECRET//SI//TK//NOFORN~~

[redacted]
From:
Sent:
To:
Cc:

[redacted]
Wednesday, December 23, 2015 8:45 AM

Subject:

RE: ACES [redacted] DAO Rep concerns -- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

[redacted]
That's correct, [redacted] and [redacted] are going down on the 29 December to take a better look at the [redacted] Workstation and [redacted] Once the CTP and Sctp are finalized we expect there to be some additional testing in January.

Regards,

[redacted]
From:

Sent: Wednesday, December 23, 2015 8:29 AM

[redacted]
Subject: RE: ACES [redacted] DAO Rep concerns -- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

Hi [redacted]

Great notes -- Thank you!

Update: TSB, [redacted] confirmed yesterday that they will be able to test ACES on 29 December. Both the tester and [redacted] will be going to ACES in Arlington. [redacted] said that it won't be complete FAT testing due to the fact they don't currently have their CTP updated.

[redacted]
Please correct me if I misunderstood what you said at the Staff meeting yesterday. Thanks.

[redacted]

From: [redacted]
Sent: Friday, September 16, 2016 12:12 PM
To: [redacted]
Cc: [redacted]
Subject: 21 September 2016 SETR Agenda --- UNCLASSIFIED

Classification: UNCLASSIFIED
=====

All,

(U) The next Systems Engineering Technical Review (SETR) is scheduled as follows:

[redacted]

(U) The agenda is as follows:

- (U) Advanced Collaboration Enterprise Services (ACES) MOAP Case (SED, [redacted])

(U) Briefing charts will be posted to the SETR SharePoint site: [redacted] (see the link to the briefing under the "Agendas" section for this meeting date).

V/r,

[redacted]

=====
Classification: UNCLASSIFIED

[redacted]
From: [redacted]
Sent: Tuesday, March 08, 2016 11:21 AM
To: [redacted]
Cc: [redacted]
Subject: [redacted] ACES Reapprove fix Xacta --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~
=====

[redacted]
This asset has an IATT until [redacted]
[redacted]

Can you correct the IATT task back to DAO approved? Screen grab below.

1/5/2016 12:55:25 - [redacted] - DAO Rep Alt

Workflow was modified

Approve

1/5/2016 10:40:31 - [redacted] - DAO (Gov Only)

Approved



Recommend: APPROVE

12/29/2015 11:23:42 - [redacted] - DAO Rep

Recommend approval of the new IATT for ACES to continue testing and implementation. [redacted]
[redacted]

Thank you,

[redacted]

[REDACTED]

From:
Sent:
To:
Subject:

[REDACTED]
Tuesday, September 05, 2017 4:13 PM

[REDACTED]
Conversation with [REDACTED]

[REDACTED]
Greetings [REDACTED] just an FYI about the IATT pending in your queue for [REDACTED] Also, I will be working the [REDACTED] ATO request this week and will follow up later this week on the status.

[REDACTED]
[REDACTED] done

[REDACTED] [4:10 PM]:

10 4. More to follow on [REDACTED]

[REDACTED]

From:
Sent:
To:
Subject:

[REDACTED]
Tuesday, September 05, 2017 1:45 PM

[REDACTED]
Conversation with [REDACTED]

[REDACTED] [1:32 PM]:

Greetings [REDACTED] just an FYI about the IATT pending in your queue for [REDACTED] Also, I will be working the [REDACTED] ATO request this week and will follow up later this week on the status.

[REDACTED]

From: [REDACTED]
Sent: wednesday, September 06, 2017 12:33 PM
To: [REDACTED]
Subject: Conversation with [REDACTED]

[REDACTED] [12:09 PM]:

You should see the [REDACTED] (ACES) ATO and IATT in your queue. I am working with the program to update their POA&M in parallel

[REDACTED] [12:20 PM]:

got it...will get to it today or tomorrow

[redacted]

From: [redacted]
Sent: Tuesday, September 27, 2016 10:35 AM
To: [redacted]
Cc: [redacted]
Subject: Extension Request for IATT (Operational) for Advanced Collaboration Enterprise Services (ACES) [redacted] -- UNCLASSIFIED

Classification: UNCLASSIFIED

[redacted]

As you know our IATT is set to expire [redacted] We have not yet received the final determination from Mr. Duncan on the ATO. I'm requesting a [redacted] day extension until the VIAB team can give the hot wash brief to Ms. Courtney whom will intern meet with Mr. Duncan.

Regards,

[redacted]

Classification: UNCLASSIFIED

[redacted]
From: [redacted]
Sent: Friday, June 24, 2016 2:21 PM
To: [redacted]
Subject: FW: ACES - Important - Please read-- UNCLASSIFIED --- UNCLASSIFIED

Importance: High

Classification: UNCLASSIFIED
=====

FYI – ORR request before connections.

From: [redacted]
Sent: Friday, June 24, 2016 2:16 PM

[redacted]
Subject: FW: ACES - Important - Please read-- UNCLASSIFIED --- UNCLASSIFIED
Importance: High

Classification: UNCLASSIFIED
=====

All,

Please see direction below from D/MOD. ACES will need to go through an ORR BEFORE it can be connected to any USG IT system – this includes [redacted] and any mission partner systems. More to come, but please continue to support A&A activities in anticipation of an ORR to be scheduled.

Thank you,

[redacted]
From: [redacted]
Sent: Friday, June 24, 2016 1:47 PM
To: [redacted]
Cc: [redacted]
Subject: ACES --- UNCLASSIFIED

Classification: UNCLASSIFIED
=====

Team,

(U//~~FOUO~~) Thank you for the updates on the ACES program. I can see that we are making good progress. As we are nearing the end of the accreditation process, I would like to insert an Operational Readiness Review gate for the program once the accreditation is complete. To that end, any work and tasks supporting the Assessment and Authorization (A&A) of the system at [REDACTED]

[REDACTED] The ACES servers in the [REDACTED] server room may remain in place but **may not be connected** until after the successful completion of the ORR.

Thanks,

From: [REDACTED]

Sent: Friday, June 17, 2016 1:44 PM

Subject: IMPORTANT: Weekly ACES Update --- UNCLASSIFIED

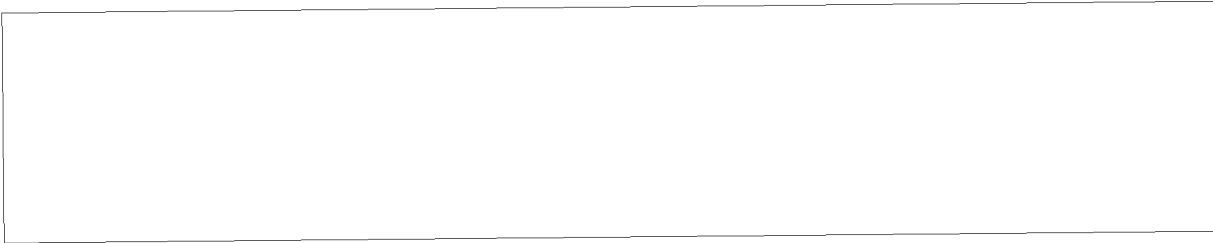
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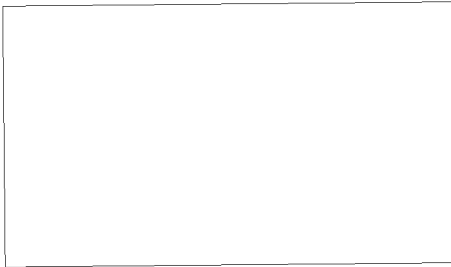
Advanced Collaboration Enterprise Services (ACES)

Creating a Common Operating Environment (COE) for MOD Collaboration Enterprise

This is a **weekly** status update on ACES for all relevant stakeholders. Highlights/Changes in **Red**.



Best,



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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

[redacted]
From: [redacted]
Sent: Monday, May 02, 2016 10:54 AM
To: [redacted]
Cc: [redacted]
Subject: FW: ACES IOC v FOC [redacted] -- UNCLASSIFIED -- UNCLASSIFIED

Classification: UNCLASSIFIED
=====

[redacted] and [redacted]

FYI - This just came in from [redacted] It's a better explanation of his IOC v FOC intent.

Thanks,

[redacted]

From: [redacted]
Sent: Monday, May 02, 2016 10:49 AM

[redacted]
Subject: RE: ACES IOC v FOC --- UNCLASSIFIED

Classification: UNCLASSIFIED
=====

Hi [redacted]
[redacted]

[Redacted]

Best,

[Redacted]

From: [Redacted]
Sent: Wednesday, April 27, 2016 4:25 PM
To: [Redacted]
Subject: ACES IOC v FOC — UNCLASSIFIED

Classification: UNCLASSIFIED

=====

[Redacted]

I've been talking to a few folks recently about ACES IOC vs FOC capability and it seems we all have a slight variation of our understanding of what we get with each milestone.

Would you please provide me the definitions/capabilities of each? I plan to share it with the team (and site leadership, as necessary), to ensure everyone hears the same information.

Thanks in advance,

[Redacted]

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Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

[redacted]
From:

Sent:

[redacted]
Thursday, September 07, 2017 8:32 AM

To:

Subject:

[redacted]
FW: Advanced Collaboration Enterprise Services (ACES) [Xacta [redacted]] ---
UNCLASSIFIED//~~FOUO~~

Attachments:

[redacted] PKI_Testing_Procedure.docx; Audit Compliance Checklist 5 May 2017_v2.pptx; [redacted]
[redacted] Briefings-ABAC - July 2017version.pptx

Classification: UNCLASSIFIED//~~FOUO~~

=====

[redacted] and/or [redacted]

Are you able to provide me background information on [redacted]
[redacted]

[redacted]
From:

Sent: Tuesday, September 05, 2017 4:19 PM

[redacted]
Subject: RE: Advanced Collaboration Enterprise Services (ACES) [Xacta [redacted]] --- UNCLASSIFIED//~~FOUO~~

Classification: UNCLASSIFIED//~~FOUO~~

=====

[redacted]
Requirements:

[REDACTED]

You can update the apps inventory information
here: [REDACTED]

Let us know if you have questions. [REDACTED]

Regards

[REDACTED]

From: [REDACTED]

Sent: Wednesday, August 30, 2017 9:57 AM

[REDACTED]

Subject: Advanced Collaboration Enterprise Services (ACES) [Xacta [REDACTED]] --- UNCLASSIFIED

Classification: UNCLASSIFIED

=====

Greetings,

[REDACTED] ended his full-time orders in May and was the ISO / Program Manager for this effort within MOD. He did not provide me any good documentation upon his departure and my Xacta knowledge is limited (I am in the project as the ISO), so I've had challenges getting useful information out of there. I'm attempting to get a solid understanding of where ACES is in the ICD-503 process and how it is faring with required [REDACTED]

As an in-development system currently in the [REDACTED]

[REDACTED] That decision is now more murky than ever so I need to spend some time on ACES and prepare for it to become an operational project (in case that's where the decision ultimately ends).

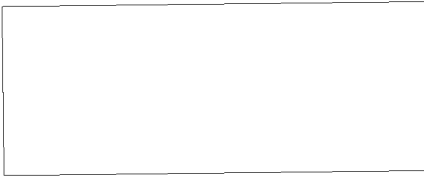
Any assistance from ATD or DAO on where the project is and what it still needs to do would be greatly appreciated.

On bit of information I was able to find in Xacta was that the IATT is due to expire [REDACTED] Is that true? If it is, what are our options and responsibilities?

Cheers!



v/r



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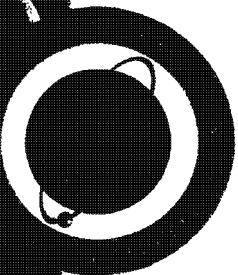


NATIONAL RECONNAISSANCE OFFICE

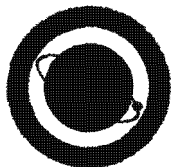
(U)Enterprise IT Audit Compliance Checklists

(U) COMM // COMM

5 May 2017



UNCLASSIFIED//~~FOUO~~



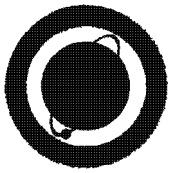
(U) Audit Compliance

- (U) NRO ISOs are responsible for making their applications compliant with IC audit standards, and monitor that compliance
- (U) There are a number of steps to audit compliance: registration, onboarding, compliance and continuous monitoring
 - (U) EITA – Audit-as-a-Service – will work with ISO's to connect their systems to AaaS collectors
 - This process called "onboarding" results in a "Active/Enabled & Non-compliant status" reporting from EITA for most systems
 - ISO's may have additional work to do to achieve compliance IASD controls and with ICS 500-27 and be able to get audit liens closed by DAO/Reps.
 - (U) COMM [REDACTED] has developed high-level checklists to help ISO's determine what they need to do to get compliant with audit controls and standards
 - These are general task summaries of what must be done; programs may have specific actions as well
 - These checklists support both systems which connect to AaaS and non-connected systems

It is the responsibility of the ISO to provide proof that their application/ system is compliant with audit standards and controls, not COMM [REDACTED] to prove otherwise

COMM [REDACTED]

UNCLASSIFIED//~~FOUO~~



(U) Audit Process

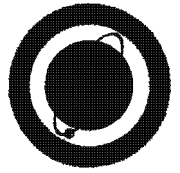
- (U) High level summary
- (U) Primary participants:

Responsible

COMM/

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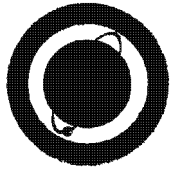
UNCLASSIFIED//~~FOUO~~
(U) How to get Audit-compliant checklist –
connected systems



COMM [redacted]

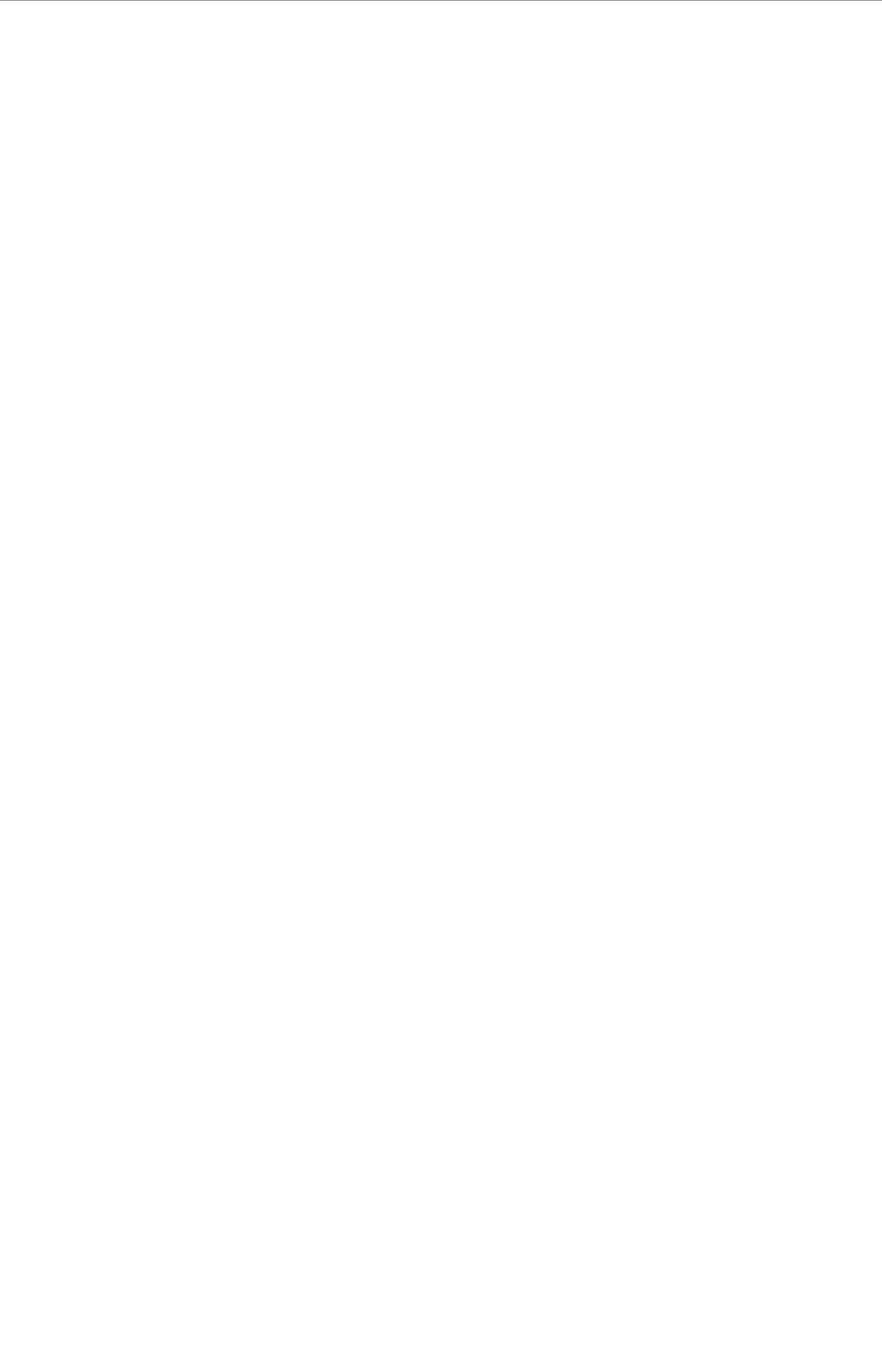
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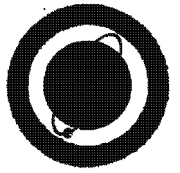
(U) Disconnected systems



COMM



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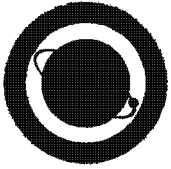
(U) How to get Audit-compliant checklist – disconnected systems*

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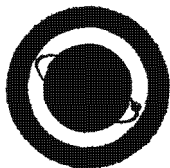


(U) Audit Compliance - Liens

- (U) What constitutes compliance with ICS 500-27 from a lien perspective? These activities are required to close audit liens.



COMM

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(U) Links to checklist resources

Step	Activity
1	Onboard with NRO Apps inventory
2	Onboard with EITA
4	Assign Audit Risk Lane
5	Develop Compliance Plan
6	Complete audit worklists
11	Generate audit events commensurate with TARL
8 (stand-alone)	Configuring stand-alone systems



Microsoft Word
Document

UNCLASSIFIED //~~FOUO~~Table is Unclassified //~~FOUO~~

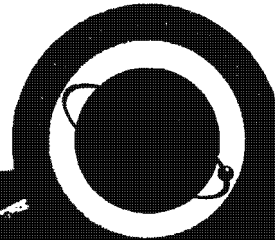
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★ NATIONAL RECONNAISSANCE OFFICE

(U) Attribute-based Access Control (ABAC) Overview

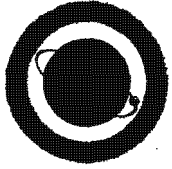
(U) COMM/ -- COMM/
Scope and Compliance Verification

1 May 2017



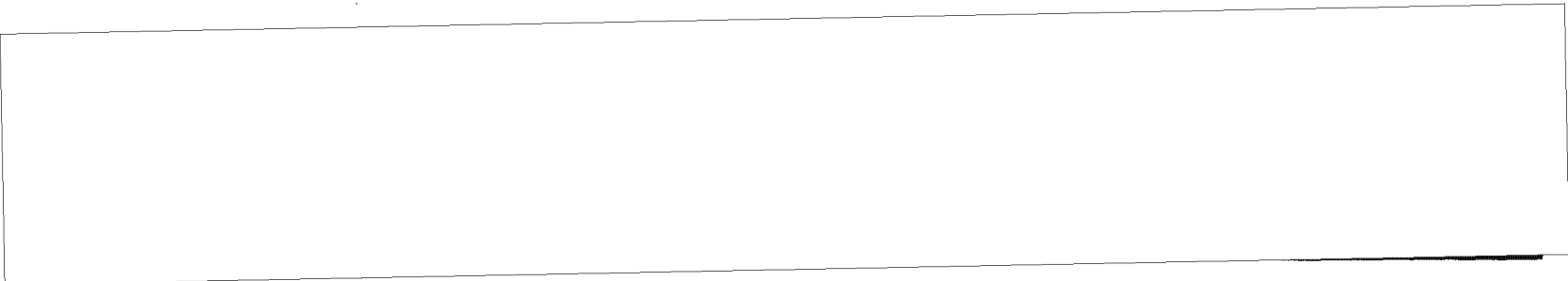
CL BY:
DECL ON: 25X1, 20391219
DRV FM: INCG 1.0, 13 FEB 2012

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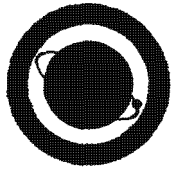


(U) What's ABAC?

- (U) Attribute-based access control (ABAC) is capability that uses the attributes of a person or non-person entity to control access to data based on pre-determined policies
- (U) ABAC improves information security by dynamically controlling access to data or applications which provide access to data

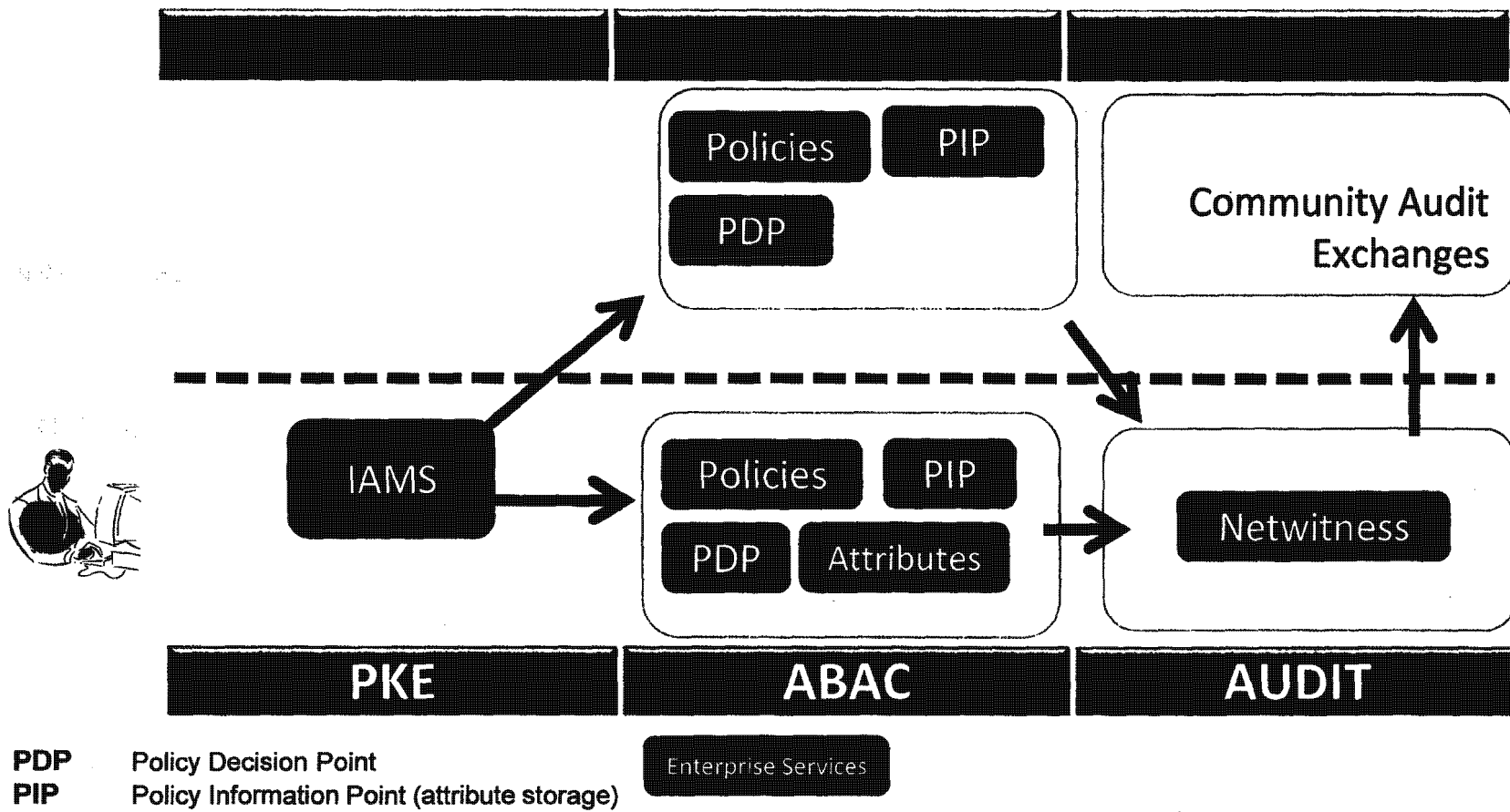


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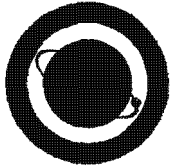
(U) Why is this important?

(U) IC Enterprise services are available to support cybersecurity initiatives to provide key enablers to defeat insider threats



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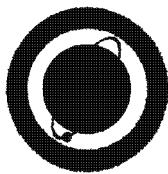


(U) ABAC Background

- (U) ICS 500-30 signed 24 April 2014, 2 years to implement
- (U) ICS 500-30 specifies ABAC, ICS 500-24 PKE is an enabler
 - Two parts: Assign attributes to personas, enable information resources – apps and data
- (U) NRO IASD Rev. C (June 2015) levies specific ABAC controls
- (U//~~FOUO~~) NRO CIO Policy Note 2016-02 30 March 2016
 - COMM to stand up ABAC infrastructure, including enterprise attributes, PEP, PDP, common controls provider, API gateway to integrate with NRO IdAM and IAA services
 - Enterprise services now available; MSS v3.0 in FY17
 - ISO serves in role as data steward for NRO-owned data, implement ABAC and document in SSP
 - Data Stewards define access policies and work with Information System Owner (ISO) to implement
- (U) Use of IC ITE services may require ABAC*

*NCC Decision Brief-2015-08-28 NRO Applications Readiness for IC ITE

COMM



UNCLASSIFIED

(U) Which NRO Applications need ABAC?

- (U) NRO CIO stated [redacted]
- (U) COMM/ [redacted]

- (U) ABAC binning approved by NRO CIO [redacted]

[redacted]

[redacted]

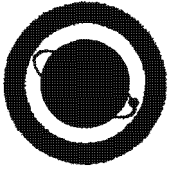
[redacted]

[redacted]

[redacted]

COMM [redacted]

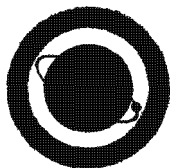
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(U) What does this mean?

- (U) If an application has restrictions on who can access it or the data within, based on user attributes, then likely it has an ABAC requirement
- (U) Data Stewards can ask this question: “Does this application have rules that restrict access to the application or underlying data, or can anyone access it?”
 - If the answer is “Yes, not everyone has access”, then there is likely an Access Control (AC) requirement
 - If there is an Access Control requirement, then ask “can I enforce this rule based on the attributes (AB) of the user?”
 - Formula: $AB + AC = ABAC$
 - How you technically-enable is a separate discussion

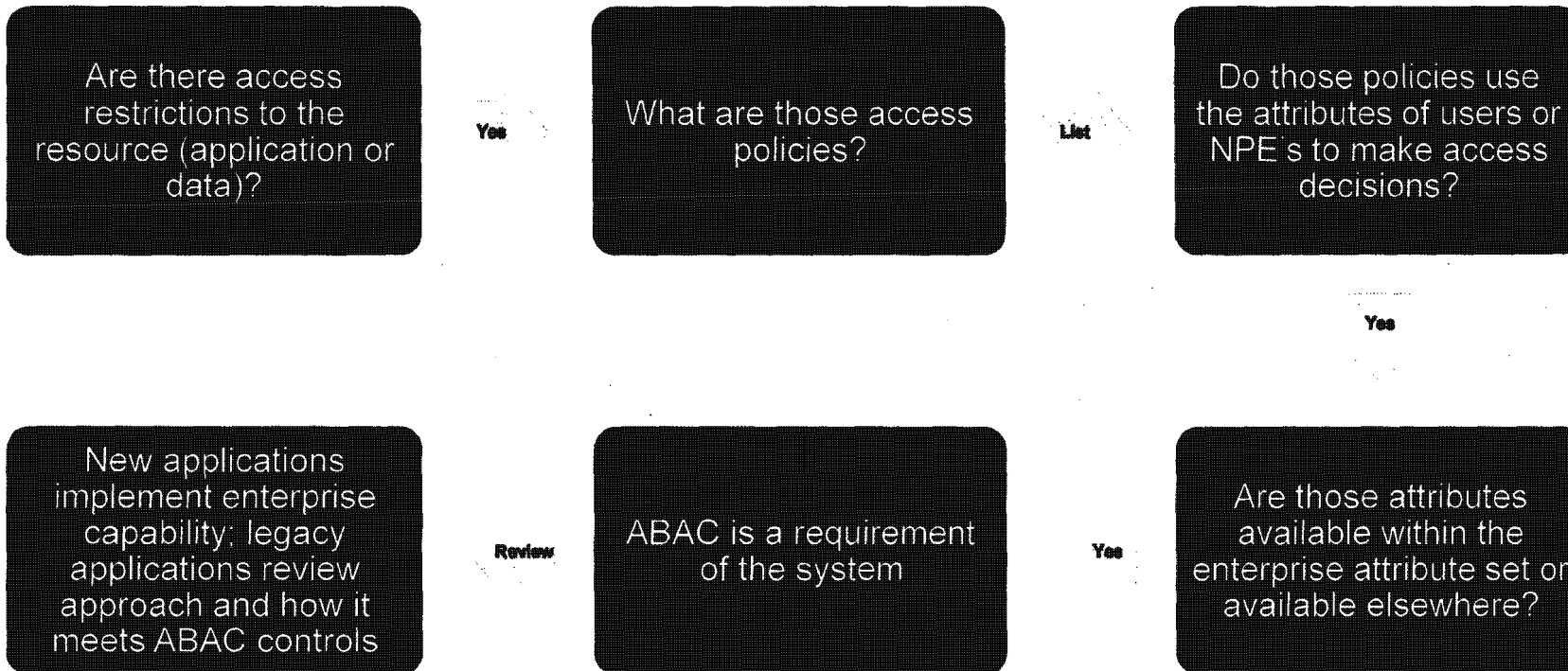
“Is it OK that your application is exposed to [redacted]?”



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(U) ABAC Decision

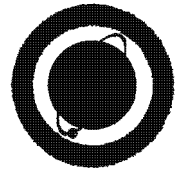
- (U) Data Stewards review their current access requirements to make an ABAC determination



COMM

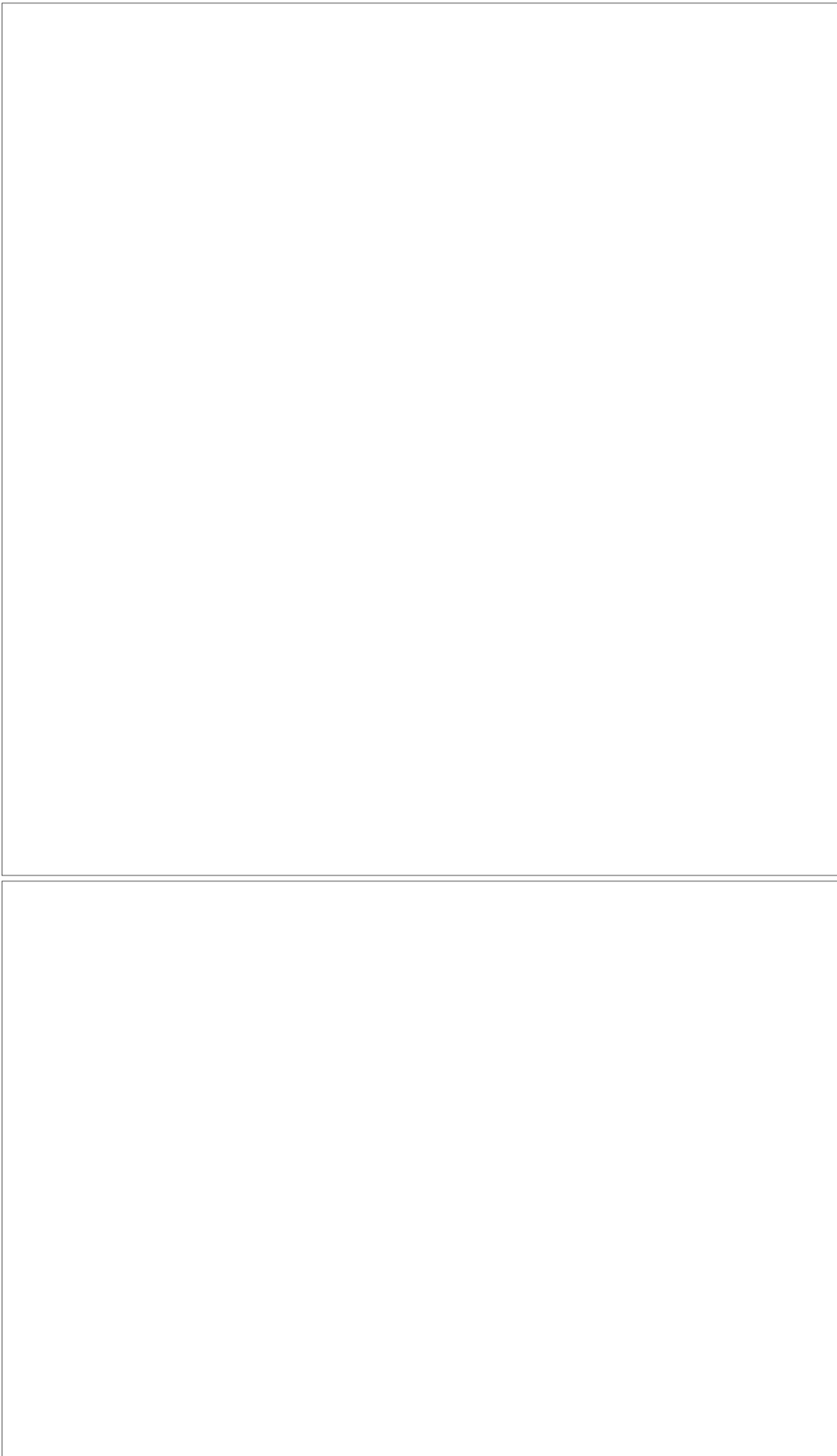
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(U) ABAC actions for App Owners



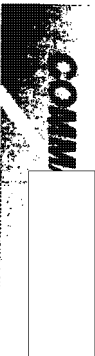
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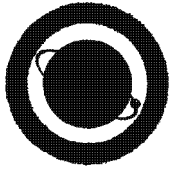
(U) Key ABAC compliance elements

- (U) Current [redacted] & DAO/Rep assessment elements review:



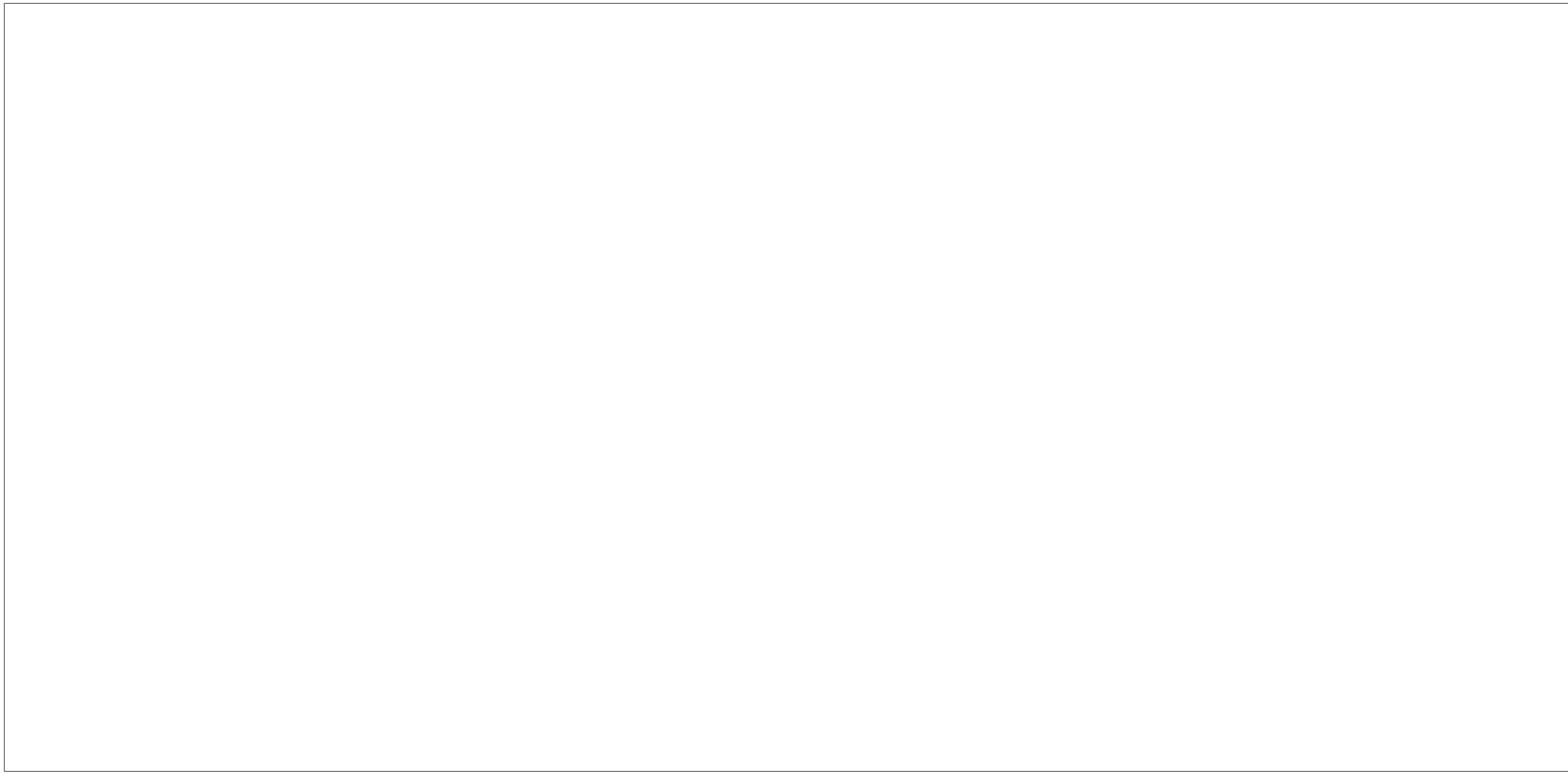
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(U) ABAC Status

- (U) [redacted] monitors all NRO PKE/Audit in-scope applications [redacted] to determine ABAC binning; data steward are now self-identifying [redacted] and making final determination [redacted] reviewing plans for compliance [redacted] compliant [redacted] CSO, [redacted] ABAC Binning

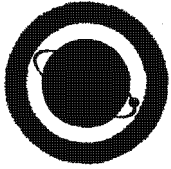


* (U) Includ
COMM

1 waived apps

(U) Graphics are Unclassified
As of 24 April 2017

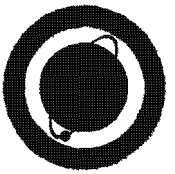
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(U) Next Steps for ISO's

- (U) Register app in NRO Apps Inventory
- (U) If not going to ABAC enable:
 - File waiver with CIO
 - Turn off system
- (U) Determine ABAC status
 - If required, develop plan for compliance, send to COMM
.mailbox

COMM

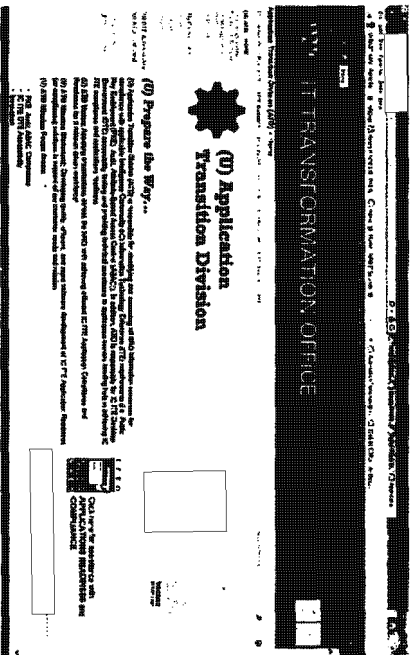


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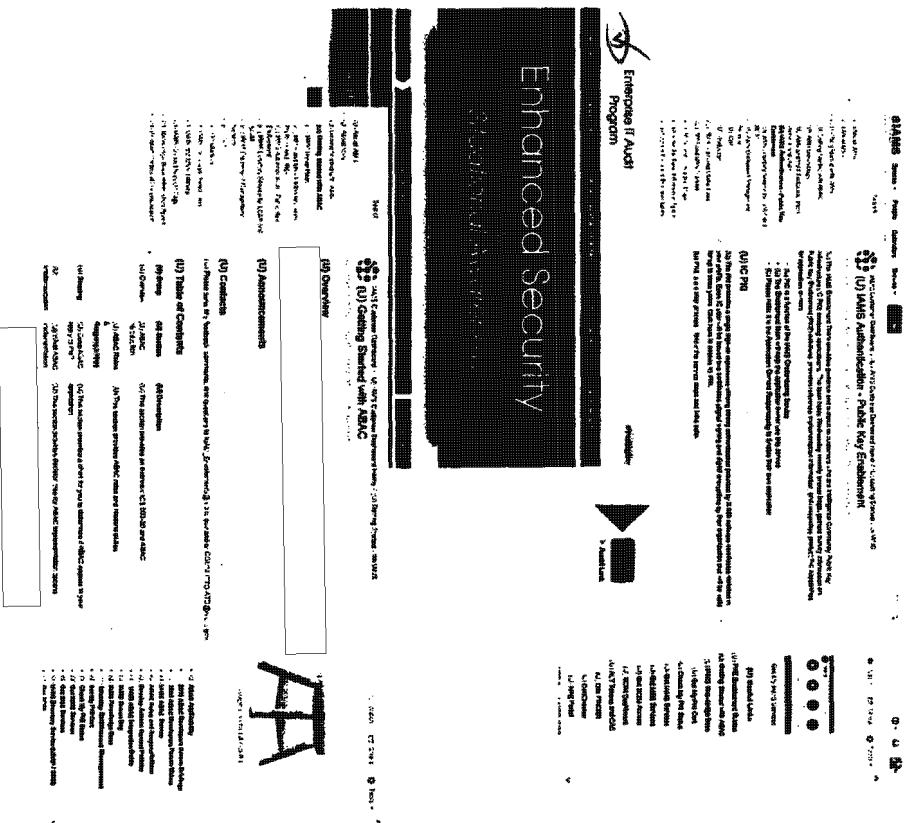
(U) Resources

• (U) Cookbooks and implementation guides

- PKE
- Audit
- ABAC
- (U) RADT Developer



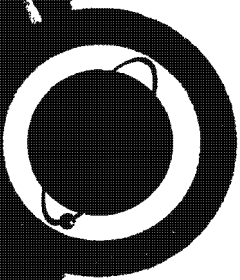
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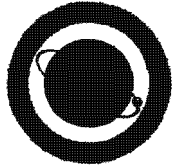
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(U) Back-Up Slides

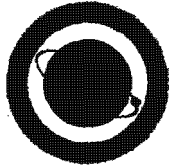


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(U) PKE/Audit /ABAC Initiatives

- (U//~~FOUO~~) White House's Near-term Measures to Reduce the Risk of [REDACTED]
[REDACTED] - Conduct a review of all information sharing portals hosted on classified computer networks to ensure each requires authentication (via PKI per IC) and supports enterprise audit. Non-compliant portals shall be appropriately secured or removed. [REDACTED]
- (U) ICS 500-24 - Web-enabled information resources of IC information domains shall [REDACTED]
- (U//~~FOUO~~) ICS 500-27 - Intelligence Community IC elements shall **audit** information resources within the IC information resources to protect national intelligence, identify threats (including insider threats), detect and deter penetration... signed in 2011; [REDACTED]
[REDACTED]
- (U) ICS 500-30 Enterprise Authorization Attributes: Assignment, Sources and Use for Attribute-Based Access Control of Resources, signed 24 April 2014, 2 years to implement



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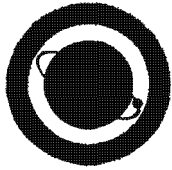
(U) RMF Step 2

- (U) ABAC-specific controls will be allocated for in-scope assets
- (U) Steps to ABAC Success translate into ABAC compliance activities

ReqID	Requirement Description
AC.3.a	The information system shall enforce approved authorizations for logical access to information and system resources in accordance with applicable access control policies (e.g., identity-based policies, role-based policies, attribute-based policies). [Source: NIST SP 800-53 AC-3]
AC.2.1.3	The Information System Owner shall authorize access to the information system based on other attributes as required by the organization or associated missions/business functions. [Source: NIST SP 800-53 AC-2.1.3]
AC.16.c	The Information System Owner shall allow individual users to associate, and maintain the association of security attributes with subjects and objects in accordance with security policies. [Source: NIST SP 800-53 AC-16(6)]
AC.3.b	For Attribute-Based Access Control (ABAC), the Information System Owner shall implement a Policy Enforcement Point (PEP) solution to enable attribute-based access controls (ABAC) on all information resources in accordance with Intelligence Community Standard 500-30. [Source: Intelligence Community Standard 500-30]
AC.3.c	For Attribute-Based Access Control (ABAC), the Information System Owner shall implement Policy Information Points (PiP), Policy Decision Points (PDP), and Policy Administration Points (PAP) to enable attribute-based access controls (ABAC) on all information resources in accordance with Intelligence Community Standard 500-30. [Source: Intelligence Community Standard 500-30]
PL.2.a	The Information System Owner shall develop a security plan for the information system that: <ol style="list-style-type: none"> Is consistent with the organization's enterprise architecture; Explicitly defines the authorization boundary for the system; Describes the operational context of the information system in terms of missions and business processes; Provides the security categorization of the information system including supporting rationale; Describes the operational environment for the information system and relationships with or connections to other information systems; Provides an overview of the security requirements for the system; Identifies any relevant overlays, if applicable; Describes the security controls in place or planned for meeting those requirements including a rationale for the tailoring decisions; and Is reviewed and approved by the authorizing official or designated representative prior to plan implementation. [Source: NIST SP 800-53 PL-2.a]

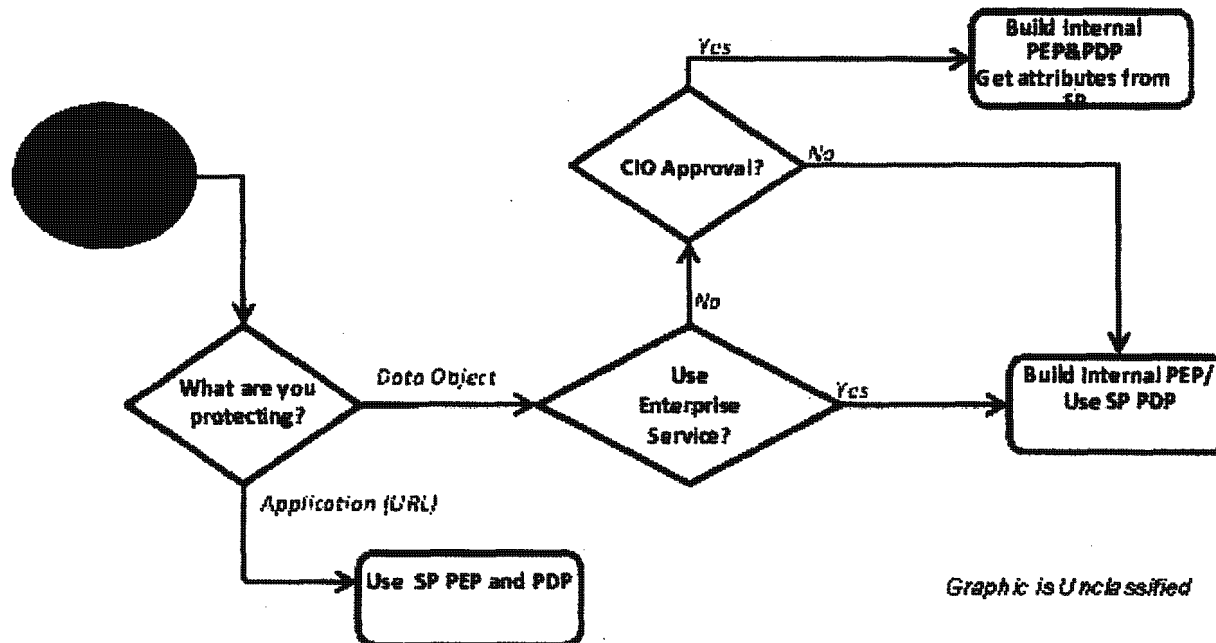
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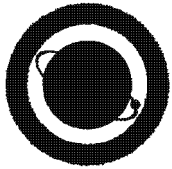
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(U) RMF Step 3

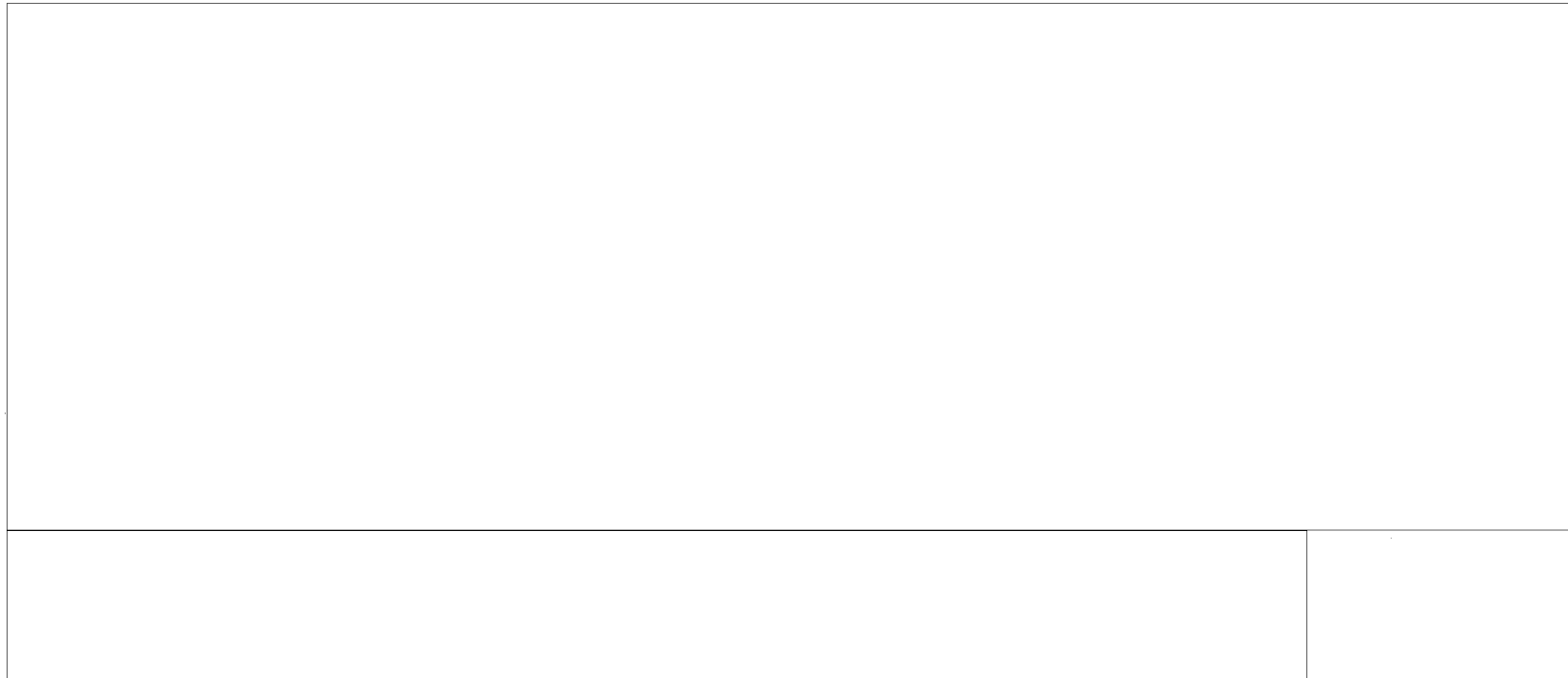
- (U) Within Step 3 of RMF, the ISO will determine how to enable ABAC
 - ISO Implement Security Controls
 - Link to Implementation Options



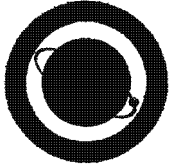


(U) ABAC Remediation

- (U) For programs that have a defined requirement, acquisition plans are required, POAM's and liens maybe next



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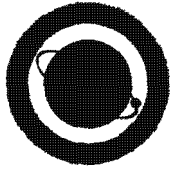
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(U) ABAC FAQ

- (U) "What is the deadline"
 -
- (U) I'm Bin 3. What do I have to do?
 -
- (U) "My COTS application uses RBAC. Is that ABAC-compliant?"
 -
- (U) "I'm an IIR and I use the OIN to authenticate. Will this work with ABAC?"
 -
- (U) "Is PKE required to do ABAC?"
 -

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(U) ABAC Steps

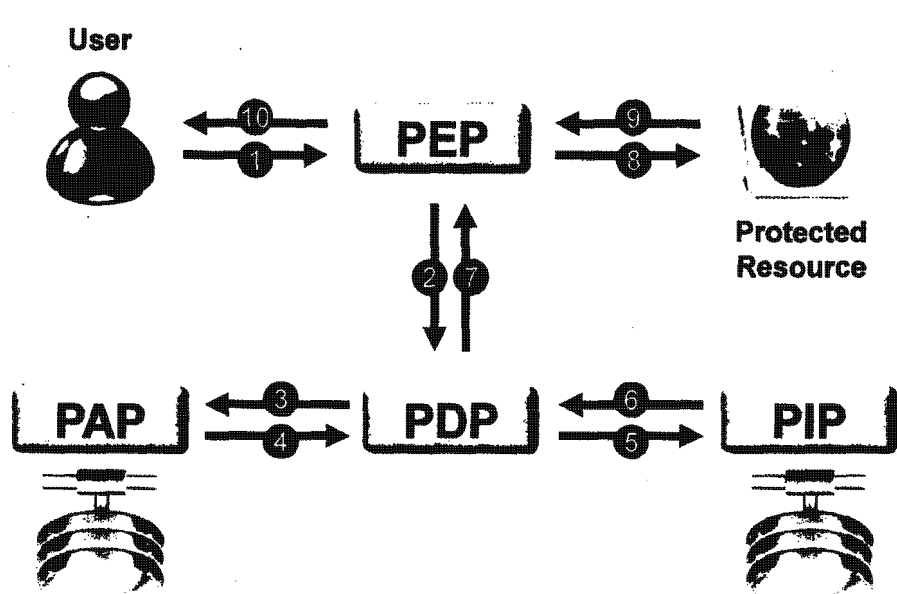


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PEP Policy Enforcement Point
PDP Policy Decision Point
PAP Policy Administration Point (policy storage)
PIP Policy Information Point (attribute storage)

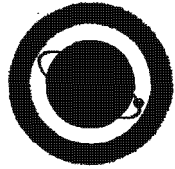
Table is UNCLASSIFIED

- ① User attempts to access a protected resource;
- ② PEP intercepts request and requests access decision from PDP;
- ③ PDP requests policies for access control decision;
- ④ PAP returns applicable policies;
- ⑤ PDP Requests attribute for user/resource;
- ⑥ PIP returns applicable attributes;
- ⑦ PDP Returns Access Decision;
- ⑧ If successful, access to protected resource;
- ⑨ Access/Denial
- ⑩ Access/Denial

Table is UNCLASSIFIED

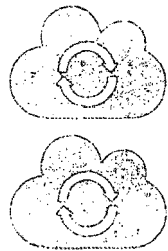


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(U) Typical Web Application ABAC Steps

Typical Application



App Components
with external and
internal data
sources

NPE systems
(Web Servers,
App Servers,
Applications)

1 Obtain PKI Certificates

- Obtain NPE PKI if your web server does not already have one
- Provide web server PKI certificate/key-pair to IAA or IdAM

2

Data Access Policies

- Create data access policies or rules for web server URLs

3

Web App, External PEP/PDP

- Lock down web server to prevent end-users from circumventing the PEP (iptables, etc.)
- If IAA, update DNS to route web site requests to the Access IT! SAMS PEP address and no longer the web server
- If IdAM, implement code in application to redirect to the gateway appliance

3

Web App as PEP, External PDP

- Update web app to implement enforcement of access control decision received from PDP
- If IAA, configure web app to connect to AccessIT! CAM using SOAP or RESTful interfaces
- If IdAM, configure web app to connect to OES using REST

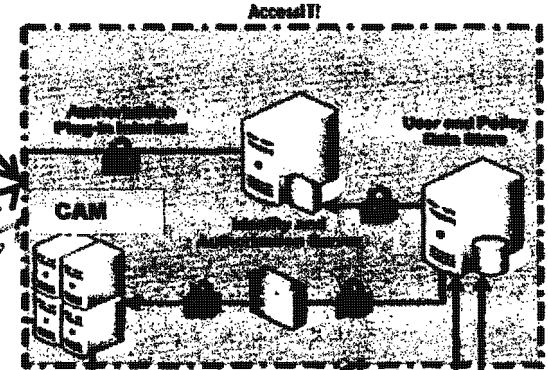
Web App as PEP/PDP, External Attributes

- Update web app to make and enforce policy rules
- If IAA, configure web app to connect to AccessIT! Attribute service using compiled WSDL (Oracle, JBOSS, Tomcat) or SOAP Attribute Web Service
- If IdAM, configure web app to pull attributes from IAMS (SCIM, LDAP, SQL)

4

Complete Final Steps

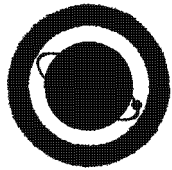
- Complete NRO RMF process; Obtain NRO CIO ABAC enablement approval



IAA/IdAM ABAC Services

ISO & Data Steward Responsibility

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(U) UIAS 3.0 Enterprise Attributes (17)

Attribute Name	Description
Admin Organization	Reflects the home organization of the entity
Authority Category	Specifies the authority(ies) under which the entity is authorized to access and/or discover protected resources.
Authority to Operate Status	This attribute indicates the Authority to Operate (ATO) status for the non-person entity.
Authorized IC Person	Reflects whether or not the entity is an AICP
Clearance	Reflects the clearance or classification level of the entity
Country of Affiliation	Reflects the citizenship(s) of affiliation(s) of the entity
Digital Identifier	Reflects the DN from the entity's PKI certificate
Duty Organization	Reflects the assigned organization of the entity
Entity Security Mark	Classification and handling of the entity's digital identifier
Entity Type	Reflects the type of entity
Fine Access Controls	Reflects the fine grain access aspects of control systems compartments or dissemination controls and SAPs of the entity
IC Networks	List of other IC networks or domains to which an entity's digital identifier may be transmitted
Is IC Member	Reflects whether or not the entity is a member of the IC
Life Cycle Status	Indicates the life cycle phase in which the entity is operating
Region	Indicates the individual countries or larger sub-regions such as geographical areas of combatant command Areas of Responsibility (AORs), Areas of Interest (AOIs), or State and Non-State Actor(s)
Role	Indicates the position, job or area of responsibility associated with the entity
Topic	Indicates the particular intelligence subject area

- (U) Unified Identity Attribute Set (UIAS) is a DNI technical specification mandated for all of the IC
 - (U) 17 Enterprise Attributes currently defined
 - (U) UIASv2014-DEC adds two additional environmental attributes (certificate authority and originating network); has yet to be adopted by IC
- (U) Blue Highlighted attributes are minimum needed information resources hosted within the Utility Component that are JWICS facing (2PI Ready)

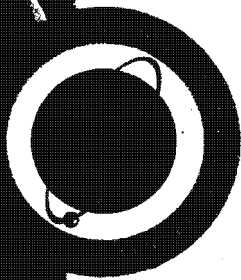
Table is Unclassified//~~FOUO~~

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IT TRANSFORMATION OFFICE

PKI Testing Procedure



PKI Testing Procedure

This memo describes the Public Key Infrastructure (PKI) testing procedure for validation of PK compliance of web URLs. FireFox version 38.7.0 is used for the examples.

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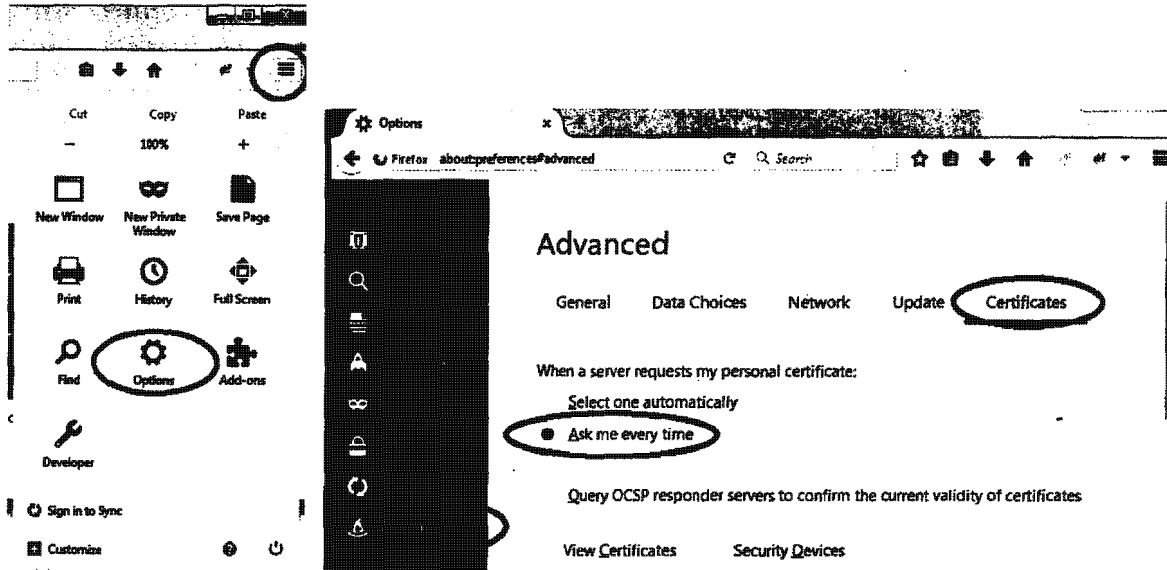
PKI Testing Procedure



1. One-Time Setup Steps

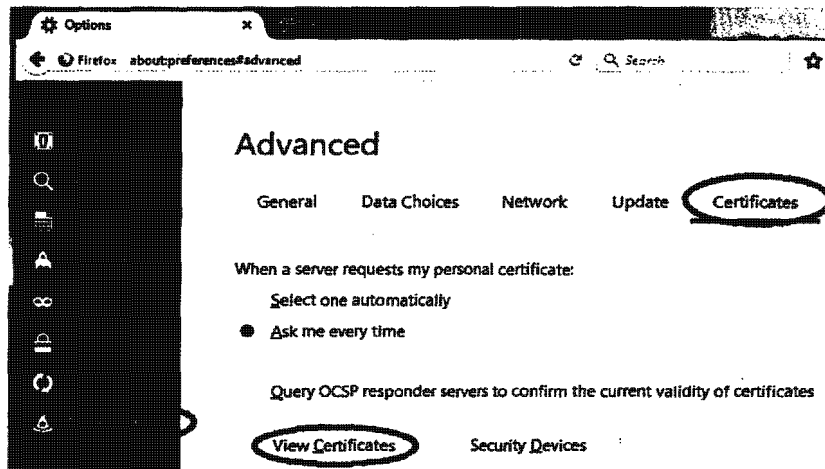
1.1 FireFox Web Browser Setting - Request User Certificate

In the Firefox browser, select "Ask me every time" under Options -> Advanced -> Certificates.



1.2 Import Certificate Authorities (CAs) into FireFox

1. Click on "View Certificates" in Options -> Advanced -> Certificates.

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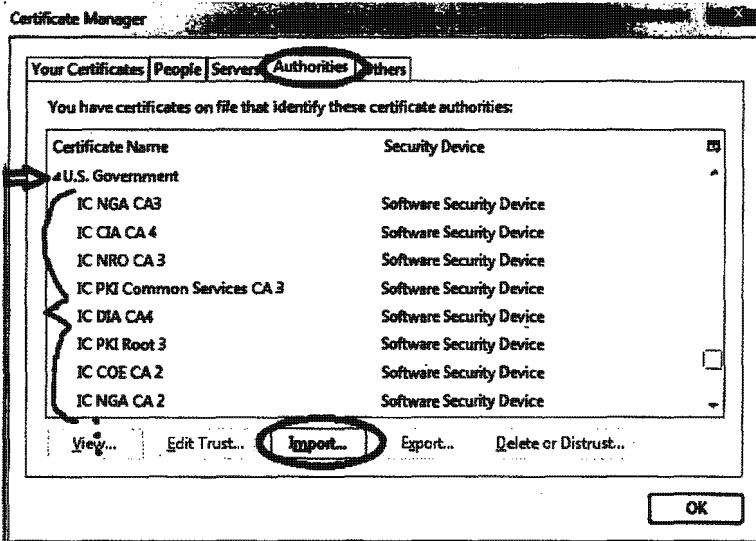
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PKI Testing Procedure



2. Select "Authorities" and scroll to "U.S. Government".



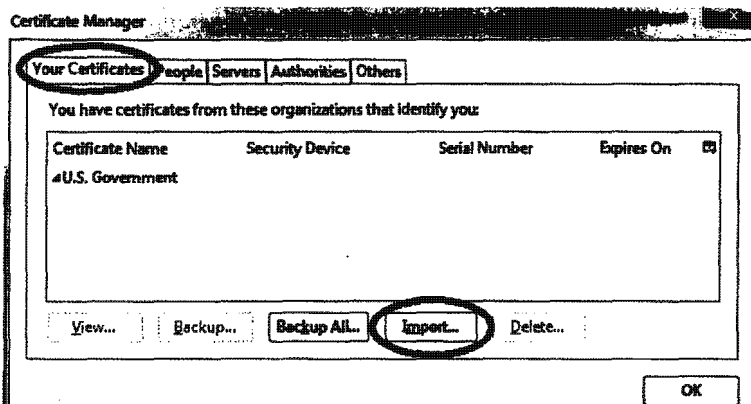
3. Ensure that the IC Certificate Authority (CA) certificates are present in the browser.
The current CAs are:

IC PKI Root CA 2	IC ITE CA 1	ICPKI DIA CA4
IC PKI Root CA 3	ICPKI Common Services CA 3	ICPKI NRO CA 3
IC PKI Root CA 4	ICPKI NSA CA 3	ICPKI NSA CA 2
ICPKI CIA OFFLINE CA	ICPKI CIA CA 4	ICPKI NSA CA3
ICPKI COE CA 2	ICPKI CIA CA 3	

If any IC CA certificates are missing, download them from
 and import them into Firefox.

1.3 Valid User Certificate

1. Obtain your PKI user certificate (if you don't already have one) from here:
2. Save the certificate on your H: drive.
3. Import your PKI user certificate into Firefox. Press "Import" under the "Your Certificates" tab.

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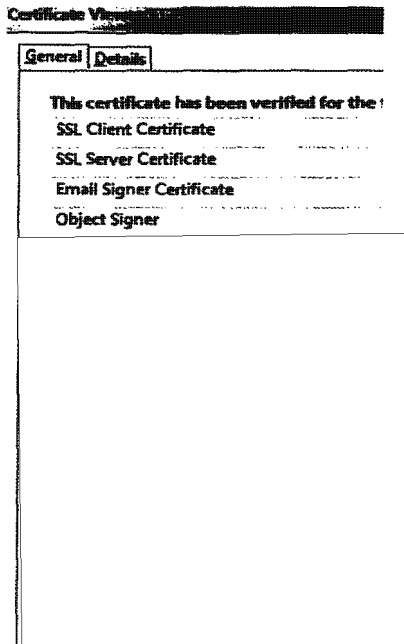
PKI Testing Procedure

**1.4 Revoked User Certificate**

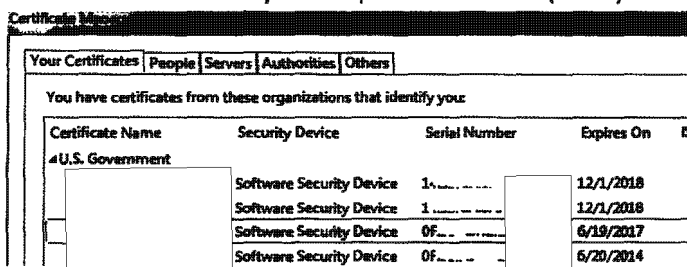
1. A revoked certificate can be created by revoking your own certificate at

Select "Revoke My User Certificates" located at the bottom of the right pane. (It may take hours before this certificate is distributed in the Certificate Revocation List (CRL).)

2. Note the information that differentiates this certificate (such as the serial number or expiration date) so you can select it from the browser pop-up menus in the future.

**1.5 Expired User Certificate**

1. Request a new user certificate. Specify that it should expire tomorrow.
2. Import the certificate. (See 1.3 step 3.)
3. Record how to identify this expired certificate (i.e. by the serial number).



4. After the new certificate has expired, request a new, valid user certificate by repeating the steps in 1.3.

Note that certificates from the IAMS "PKE Testing using NRO Test PKI Certificates"

site's certificates are only for test web sites and cannot be used for with this procedure for testing production sites.

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PKI Testing Procedure



2. PKI Testing

2.1 Prepare Document For A Batch Of Tests

1. **Create test report document** based on the template in Appendix A.
2. **Obtain the list of URLs of the sites to test.** Create a table of application URLs with Asset name, Acronym and ID.

Application information taken from the NRO Application Inventory often contains multiple URLs per application. Extract each URL so that the resulting list contains one URL per entry. Clean up the data URLs; Remove non-URL text, commas, white space, etc.

3. **Create Test Results tables.** To document the test artifacts and results, one test results table should be created for *each* URL. Place each table on separate page.

ID	ID number (ID from NRO Apps Inventory or an index). May append the Acronym.
Asset Name	Name of the application.
URL	Address to test.
User cert requested?	Yes or No. (Was there a pop-up requesting a user certificate selection?)
Server cert accepted?	Answer "Yes" if https URL and no server certificate error is seen. If there is a server certificate error, answer "No" and include a snapshot of the error.
Access With	Good User Cert
Resulting Page(s)	Snapshots of pages and pop-ups. Include the address bar when available.
Meaning	Short interpretation of the results.
Access With	Revoked User Cert
Resulting Page(s)	Snapshots of pages and pop-ups when accessing the site with a revoked user certificate. Include the address bar when available.
Meaning	Short interpretation of the results.
Access With	Expired User Cert
Resulting Page(s)	Snapshots of pages and pop-ups when accessing the site with an expired user certificate. Include the address bar when available.
Meaning	Short interpretation of the results.
Status	Overall results of the test: "Pass", "Inconclusive", "Prevented" or "Fail" (with reason).

(For large URL lists, see the appendix A for a script to help with creating the test tables.)

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PKI Testing Procedure

**2.2 Test Each URL****2.2.1 Initial Certificate Tests**

1. Locate a Test Results table for a URL to test in the report document. **Get the URL value.**
2. Start with a fresh **Firefox** browser session.
3. **Enter the URL** to test in the address bar and press Enter.
4. If there was a **connection error**, such as a timeout, DNS lookup failure, cannot communicate with external server, connection refusal, server not found, etc., record in the Status box of the Test Results table that the test was "Prevented because of connection.". A snapshot of the error (including the Address bar) may be placed in the box "User cert requested?". Example:

ID	123
Asset Name	XYZ
URL	https://xyz.com
User cert requested?	<div>NA</div>

...	
Status	Test prevented because of connection.

The test is done. Skip to 2.2.4 Post-Test Browser Clean Up.

5. If there is a **security error** such as a secure connection fail or if a basic authentication pop-up appears or if the web site page is displayed, then record "Fail" in the Status box of the Test Results table. A snapshot of the error may be placed in the "User cert requested?" box. The test is done. Skip to 2.2.4.
6. A **user certificate pop-up** ("User Identification Request") should appear.

If your certificate is not prompted for and the web site content is displayed, then enter "No" in the "User cert requested?" box and "Fail" in the "Status" box of the Test Results table. The test is done. Skip to 2.2.4.

If your certificate is prompted for, record "Yes" in the "User cert requested?" box in the Test Results table.

7. Select the **good** certificate. Leave the "Remember this decision" box checked and click OK. (No need to take a snapshot of this.) This dialog may pop-up multiple times (even though "Remember this decision" was checked) because of redirections. Select the good certificate each time.

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PKI Testing Procedure



User Identification Request

This site has requested that you identify yourself with a certificate:

Organization: "U.S. Government"
Issued Under: "U.S. Government"

Choose a certificate to present as identification:

Details of selected certificate:

☒ Remember this decision

OK Cancel

8. After selecting your good user certificate, the **server** certificate is checked by the browser. If there is a "This Connection is Untrusted" pop-up, expand the "Technical Details" section and take a screen-shot of it and place it in "Server cert accepted?" box along with the answer "No".

ID	ID number (ID from NRO Apps Inventory or an index). May append the Acronym.
Asset Name	Name of the application.
URL	Address to test.
User cert requested?	Yes.
Server cert accepted?	<p>No.</p>

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PKI Testing Procedure

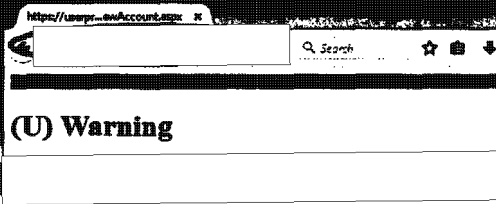


Expand the "I Understand the Risks" section. If there is no "Add Exception" button, record "Prevented because of bad server certificate." in the Status box of the Test Results table. The test is done. Skip to 2.2.4.

If there is an "Add Exception" button, then click on it. (More information can be gathered by clicking on "View" and taking screen shots.) Click on "Confirm Security Exception" to continue testing this URL.

If there is no "This Connection is Untrusted" pop-up, then record "Yes" in the "Server cert accepted?" box.

9. Take a screenshot of the **web page contents** that is loaded and save it in the "Resulting Page (s)" box. (Include the Address box.)

Access With Good User Cert	
Resulting Page (s)	
Meaning	

10. Enter the meaning of the results in the "Meaning" box. If you see your account name displayed or a recognition of your identity, then record that. Example: "Identified user based on user certificate". If no recognition of your identity but site contents displayed, you might record that the site "Allowed access when given a valid user certificate".
11. Prepare for the next part of the test by clearing the recent history and exiting the browser. (Refer to 2.2.4 for details.)

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PKI Testing Procedure

**2.2.2 Revoked User Certificate Test**

12. Start with a new **Firefox** browser session.
13. Enter the **URL** in the address bar again and press **Enter**.
14. When your user certificate is prompted for by a "User Identification Request" pop-up, select the **revoked certificate**. Leave the "Remember this decision" box checked and click **OK**. This dialog may pop-up multiple times.
15. Take a screenshot of the **web page contents** that are displayed and save it in the "Resulting Page (s)" box.

Access With Revoked User Cert	
Resulting Page (s)	
Meaning	
...	
Status	

16. Enter the **meaning** of the results seen (when the revoked certificate was given) into the "Meaning" box. Enter the overall test results in the "Status" box.

For example, if the contents of the web site are displayed, you could enter "Allowed access when given a revoked user certificate" as the meaning and enter "Fail" as the overall status. The test is done. Proceed to 2.2.4.

If there was no indication that the certificate was recognized as revoked, then "No indication that the revoked user certificate was rejected" could be entered as the meaning and "Inconclusive" be entered as the overall status. (This is the case where the exact same access-not-allowed page is displayed for both the good certificate and the revoked user certificate.) The test is done. Proceed to 2.2.4.

If a page appears stating that access is denied because the user certificate is revoked, then the meaning would be "Site blocked access to revoked user certificate".

17. Prepare for the next part of the test by clearing the recent history and exiting the browser. (Refer to 2.2.4 for details.)

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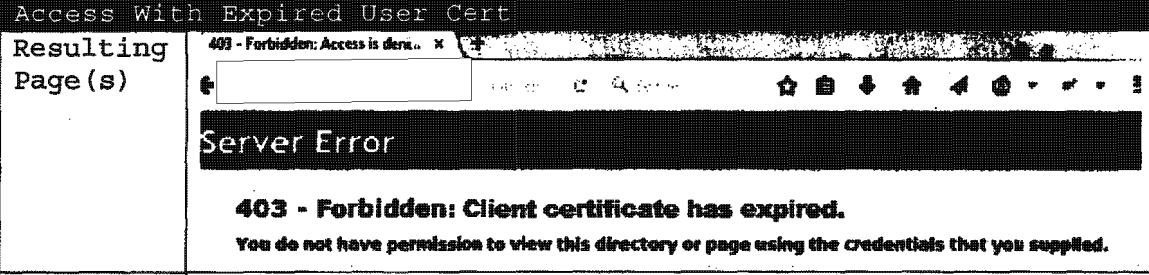
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PKI Testing Procedure

**2.2.3 Expired User Certificate Test**

18. Start with a new **Firefox** browser session.
19. Enter the **URL** in the address bar again and press **Enter**.
20. When your user certificate is prompted for by a "User Identification Request" pop-up, select the **expired certificate**. Leave the "Remember this decision" box checked and click **OK**. This dialog may pop-up multiple times.
21. Take a screenshot of the **web page contents** that are displayed and save it in the "Resulting Page(s)" box.

Access With Expired User Cert	
Resulting Page(s)	
Meaning	Site blocked access to user with expired certificate.
Status	Pass

22. Enter the **meaning** of the results seen (when the expired certificate was given) into the "Meaning" box. Enter the overall test results in the "**status**" box.

For example, if the contents of the web site are displayed, you could enter "Allowed access when given an expired user certificate" as the meaning and enter "Fail" as the overall status. The test is done. Proceed to 2.2.4.

If there was no indication that the certificate was recognized as expired, then "No indication that the expired user certificate was rejected" could be entered as the meaning and "Inconclusive" be entered as the overall status. (This is the case where the exact same access-not-allowed page is displayed for both the good certificate and the expired user certificate.) The test is done. Proceed to 2.2.4.

If a page appears stating that access is denied because the user certificate is expired, then the meaning would be "Site blocked access to user with expired certificate".

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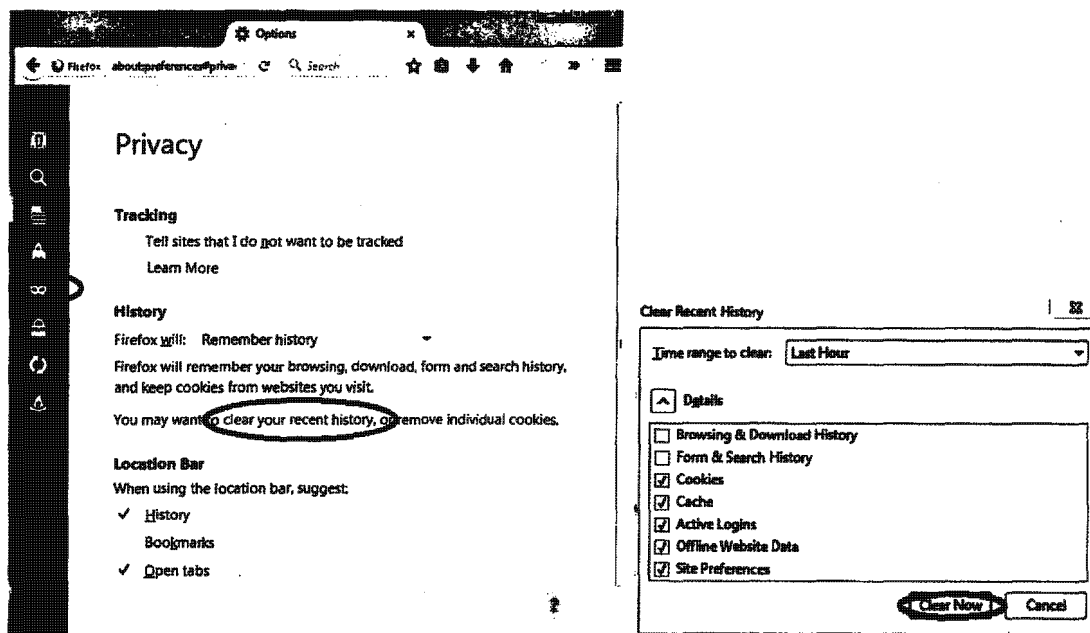
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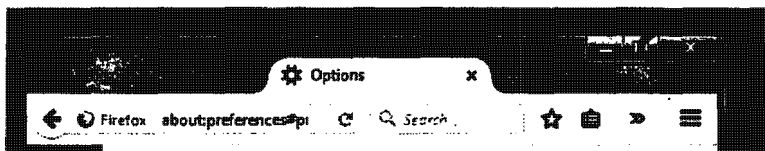


2.2.4 Post-Test Browser Clean Up

23. Clear recent cookies, cache, active logins, offline website data and site preferences. Click "clear your recent history" under Options -> Privacy.



24. Exit the browser.



2.2.5 NRO Applications Inventory Update

25. In the "Audit/PKE Compliance View" (or the first "PKI Verification" view), update the
- "A&CS:PKE Compliance Verification" to the status of the test for the URL, and
 - "A&CS PKE Verification Date" to the date the test was performed.
 - If the URL tested is missing from (or has changed in) the NRO Applications Inventory, then update the URL value in the inventory.

26. Perform test procedure for the next web site URL.

2.3 Finishing Step

Populate the Summary of Results table. See Appendix B for an example.

You may wish to add statistics and/or a chart for larger reports.

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Appendix A. Report Template

From: <Your name>, COMM

Date: 2016-05-13

Subject: PKI Verification Test Results

This is a report of the results from the PKI tests on the given URLs. Each PKI enabled site is expected to require a user certificate. If the site requested a certificate, a valid user certificate was provided and a home page, login page or access denied page was expected. Then, using a fresh browser, the site was tested again with a revoked user certificate. The site is expected to check the Certificate Revocation List (CRL) and recognize the revoked certificate and prevent access to the site.

Summary of the Results

Asset	ID	Server Cert	Access With Good User Cert	Access With Revoked User Cert	Status

Test Table Field Definitions

Field	Description
ID (Acronym)	ID number (from NRO Application Inventory) and optional Acronym.
Asset Name	Name of application.
URL	The address to test.
User cert requested?	"Yes" means there was a pop-up requesting a user certificate selection.
Server cert accepted?	"Yes" means that there was no server certificate error for the https URL.
Resulting Page(s)	Snapshots of resulting pages and pop-ups.
Meaning	Short interpretation of the results.
Status	Overall result of test: Pass, Inconclusive, Prevented or Fail.

Status Definitions

Status	Meaning
PASS	Site required a user certificate. Home or login page was accessed with a valid certificate. Site blocked access when a revoked user certificate was provided.
Inconclusive.	Testing results did not provide enough information to positively conclude that the site passed or failed. One such case is where the site required a user certificate but access was prevented for both valid and revoked user certs and no reason was given; There was no information to indicate that the server recognized that the revoked user certificate was revoked.
Test prevented because of connection.	Could not perform PKI test on server due to connection problems such as DNS lookup failure or connection timeout.
Test prevented because of bad server certificate.	There were issues with the site's server certificate (such as inadequate cert type, weak ephemeral DH, bad domain, CN or SAN does not match host name, unknown issuer) that prevented testing.
FAIL	Completed the PKI test. Either the site did not require any certificate for access or it allowed access when given a revoked user certificate.

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**Test Data**

Results of the tests for each URL follows.

ID	
Asset Name	
URL	
User cert requested?	
Server cert accepted?	
Access With Good User Cert	
Resulting Page(s)	
Meaning	
Access With Revoked User Cert	
Resulting Page(s)	
Meaning	
Access With Expired User Cert	
Resulting Page(s)	
Meaning	
Status	

*End of template.***Header Script** If there are many URLs, using this script to generate headers may save some time.

```
# PKI_Test_Headers.ps1 PowerShell script to generate PKI Test Page Headers given a
# 'PKI Test URLs.csv' CVS file.
#
# The CVS file should contain these column names (which are suitable as property names):
# ID Asset Acronym URL

Set-ExecutionPolicy Unrestricted; ### Must be entered by an Admin.
### If no Admin, then the following script must be entered on a single line. See below.

Import-CSV -Path '.\PKI Test URLs.csv' |
    ForEach-Object {
        {
            $i = $_.ID;
            $n = $_.Asset;
            $a = $_.Acronym;
            $u = $_.URL;

            Write-Output "ID      $i ($a)`nAsset Name $n`nURL      $uUser cert requested?
`nServer cert accepted?      `nAccess With Good User Cert      `nResulting Page(s)
`nMeaning      `nAccess With Revoked User Cert      `nResulting Page(s) `nMeaning
`nStatus`n`n^L?";

        } |
        Out-File PKE_Test_pages.txt

    }

### Same script but on a single-line:
Import-CSV -Path '.\PKI Test URLs.csv' | ForEach-Object { $i = $_.ID; $n = $_.Asset; $a =
$_ .Acronym; $u = $_.URL; Write-Output "ID      $i ($a)`nAsset Name $n`nURL      $uUser cert
requested?      `nServer cert accepted?      `nAccess With Good User Cert      `nResulting Page(s)
`nMeaning      `nAccess With Revoked User Cert      `nResulting Page(s) `nMeaning
`nStatus`n`n^L?"; } | Out-File PKE_Test_pages.txt

### Append the contents of PKE Test pages.txt to the document and convert text to tables.
```

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Appendix B. Example Report Data

Example of a Summary Results Table

Asset	ID	Server Cert	Access With Good User Cert	Access With Revoked User Cert	Status
AIRBRUSH	2235	Good	Allowed access when given a valid user certificate.	Blocked access when given a revoked user certificate.	Pass
ABC	123	Good	Identified user based on user certificate.	No indication that the revoked user certificate was rejected.	Fail
DEF	456	NA	Displayed page. Did not ask for a user certificate.	Displayed page. Did not ask for a user certificate.	Fail
GHI	789	Expired	Displayed page. Accepted user cert.	Allowed access when given a revoked user certificate.	Fail
JKL	012	Weak server ephemeral DH key	NA	NA	Prevented because of bad server certificate.
MNO	345	Server not found.	NA	NA	Prevented because of connection.
PQR	678	Good	"Your sign-in attempt failed. Please try again."	"Your sign-in attempt failed. Please try again."	Inconclusive.

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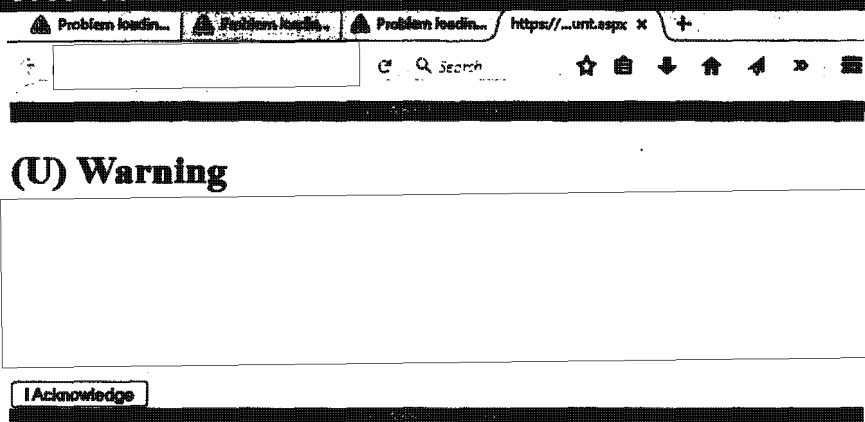
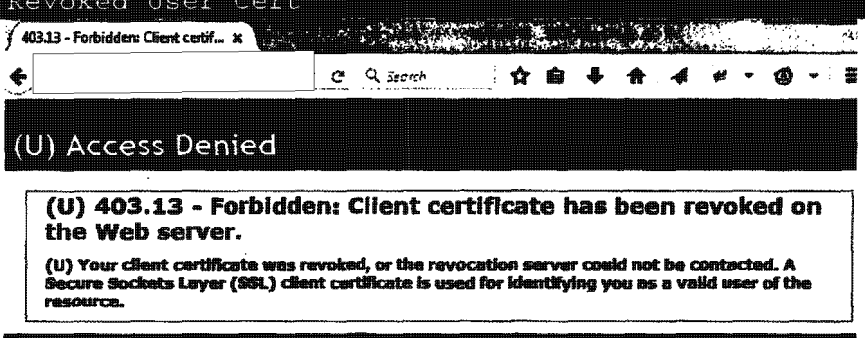
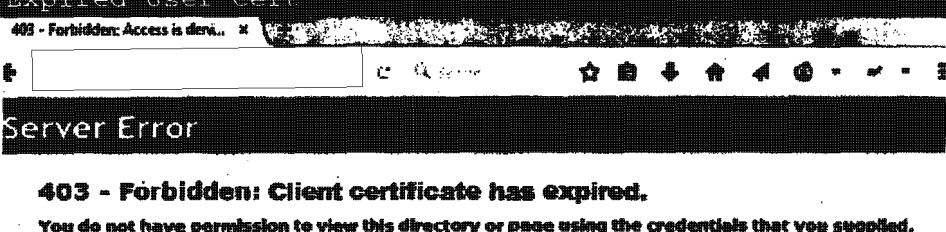
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Example of a Test Results Table

ID	2235 (AIRBRUSH)
Asset Name	(U) AIRBRUSH
URL	
User cert requested?	Yes
Server cert accepted?	Yes
Access With	Good User Cert
Resulting Page (s)	
Meaning	Web site contents provided for user with good certificate.
Access With	Revoked User Cert
Resulting Page (s)	
Meaning	Web site access prevented for user with revoked certificate.
Access With	Expired User Cert
Resulting Page (s)	
Meaning	Web site access prevented for user with invalid expired certificate.
Status	Pass

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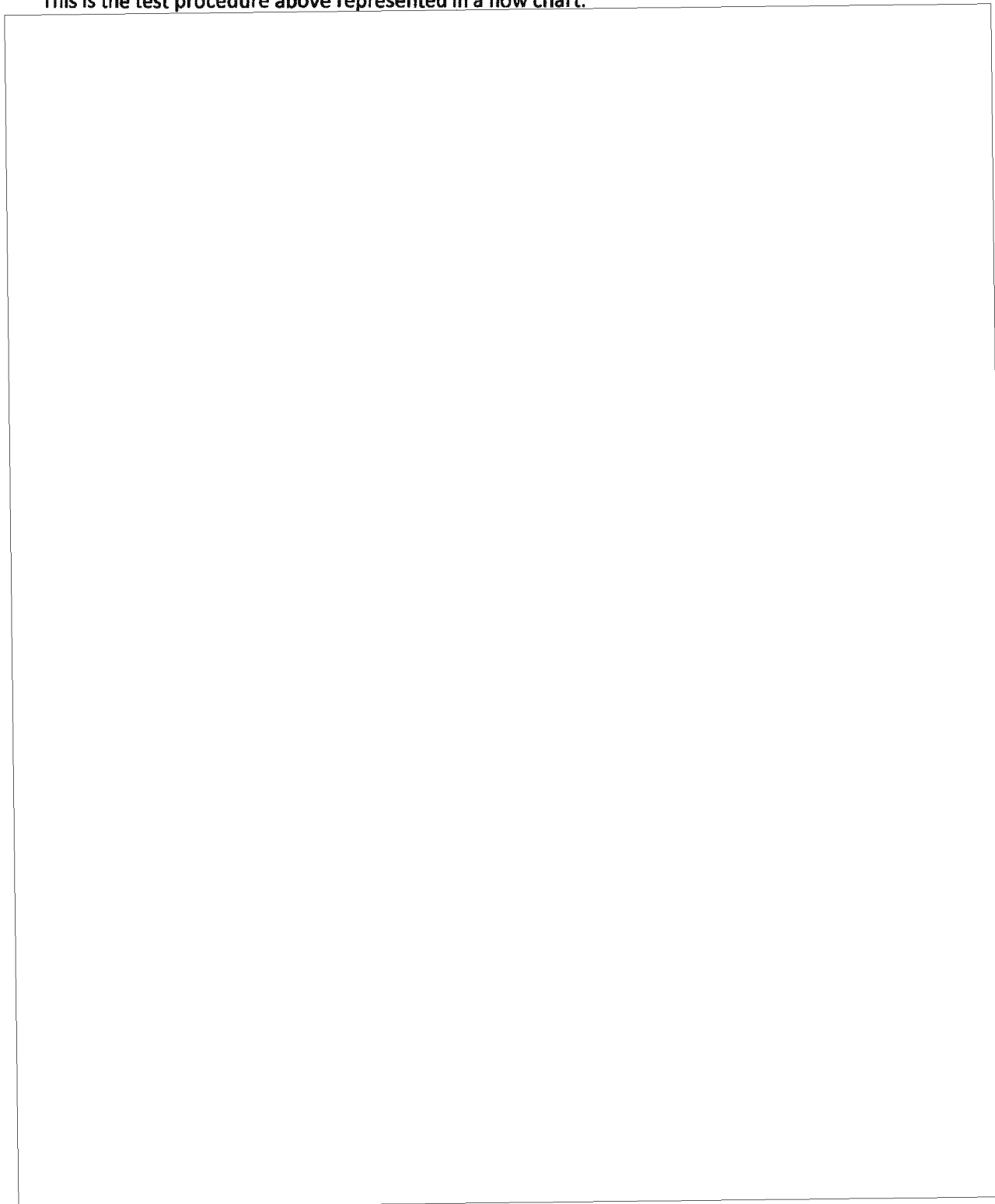
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Appendix C. Test Procedure Flow Chart

This is the test procedure above represented in a flow chart.



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