To CAcert.org Education & Training - To CAcert.org Education & Training Overview
To Assurance Policy

CAcert.org Assurer Handbook (incl. PracticeOnNames)

Meta Comments

> As the Assurance Policy is in POLICY, this document is in effect! p20090105.2

- This is the practices handbook for Assurance, authorised under Assurance Policy.
- This is a working document for us Assurers. It will likely always be in need of help!
- Please correct and complete it so it is soon useful for our new assurers.
- Ted has done a monumental job of collecting the information together here
- The new Assurance team of Ulrich, Joost, Ian, Dirk, Ted and Sebastian are:
  - trying it out in practice, and
  - making it a living document.
- you can help: add comments in *italics* where it needs work.
- Also note: OA needs a Handbook as well.

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Introduction

This handbook is intended for fresh CAcert assurers. It should give you a first guide on what to do and what to know when acting as a CAcert assurer, and serve as a starting point for more in depth research on specific topics.

Related Documentation

- Documentation on Assurance is split between Assurance Policy (AP) and this Assurance Handbook (AH).
- Assurance Handbook has further related Practice sub documents to clarify AP. If AH or Practice documents contradicts AP, AP is binding. Practice documents are also leading for Arbitration.
  - Practice On Names (PoN) (that is now part of this AH)
  - Practice on ID Checking (PoIDC)
- Subpolicies to Assurance Policy (AP)
  - Policy on Junior Assurers / Members PoJAM DRAFT
  - TTP-Assisted-Assurance TTP-Assisted-Assurance (DRAFT)

Overriding Documents

Although this document can be considered to be your working "Assurer's bible", there are several other documents of importance. Especially,

- Assurance Policy (POLICY) is the ruling document that establishes the Assurance system. Its purpose is to deliver an Assurance that works for certificates, as per the CPS. It authorises this Handbook as our valid and current practice. **POLICY**
- the Certification Practice Statement (CPS, **DRAFT**) is the ruling document for how certificates are issued. The section 3.2.2. Authentication of Individual Identity links to the Assurance Policy (above) in order to state what it is that members may rely upon when using certificates. *now binding on the community*
- Organisation Assurance Policy is the authority on Assurance on Organisations. **POLICY**
- Every Member of CAcert (and therefore every Assurer) is bound by the CAcertCommunityAgreement. **POLICY**

A word on Policies

This Handbook is not a policy, but a working practices guide. In the case of contradictions, policies are the final authority, so this Handbook has to conform to those documents. If you find such contradictions please make them known to CAcert's policy mailing list at [cacert-policy@lists.cacert.org].

Other policies and documents of CAcert can be found at OfficialDocument. The work of creating policies is controlled by Policy on Policy and is conducted in the open at CAcert's policy mailing list at [cacert-policy@lists.cacert.org]; any Member may join and contribute. When documents are still being written they are referred to as *work-in-progress* or WIP, above. When approved in **DRAFT**, they are binding on the community, but still being finalised. When fully approved they are marked as **POLICY** and are officially published on the controlled website at https://www.cacert.org/policy.

All policies have an effect on assurance, although they may not address assurance explicitly. For example, the Privacy Policy also has some impact on the process.

Your obligations as an Assurer

- You have to conduct Assurances according to the rules given in the policies, especially the Assurance Policy (POLICY).
- You have to keep yourself informed about changes in CAcert policies.

Some easy ways to keep you informed about important changes in the policies are

- Subscribe to cacert@lists.cacert.org Mailinglist. It is comparatively low-volume.
- Occasionally browse the CAcert Blog or subscribe the RSS feed.

- Retry the AssurerChallenge once a year.

Your risks and liabilities

By joining CAcert you accept the CAcert Community Agreement (CCA), which defines the risks and liabilities of CAcert members. You should be very familiar with this document so that you can understand these risks and liabilities for yourself and for any new and prospective Members that ask questions about the issues.

There is both good news and bad news: The CCA places a limit on monetary liability to you of 1.000 EUR (one thousand Euros). Each member accepts Arbitration, which is our system to keep disputes internal, rather than expose our members to courts in far away lands, expensive lawyers, and judgments that might not fully appreciate what certificates are about. The limit of liability is balanced across the Community, as it applies to you as well as to anyone who has a dispute with you, so it is both a maximum to protect you and a liability directly to you.

Therefore, you should always be careful when doing Assurances, because you **can be held responsible by the Arbitrator** up to this limit!

The Assurance Procedure

The assurance procedure is a crucial part of the CAcert project. If the assurances are conducted in a reliable way, members will be able to usefully rely on the CAcert certificates. If assurances are made superficially, this reliance will fail and the project will go down the drain. So we all depend on **you**!

The following procedure is a proposal. You may alter the process, but then you have to make sure that your process conforms to CAcert's Assurance Policy (POLICY) *!!*

Make yourself known as a CAcert assurer

Probably the best way to do this is to enter a location into your profile and allow your entry to be shown in the users list. Other ways, like advertising yourself among your friends and colleagues, are left at your discretion.

Assurance within *web of trust* is a two-way street, and you should share some minimum information such as your email address and Name. For example, on a business card. See also Mutual Assurance.

Preparing yourself for an assurance

Now let's assume that someone has contacted you and asks you to assure his or her identity for CAcert. There are other ways to do a correct assurance, but this is a good way to start with.

Print out a pre-filled CAP form

First of all you should check whether the applicant already has an account at CAcert. Go to https://secure.cacert.org/wot.php?id=5 and enter the applicant's mail address. If the email was correct you will be shown the interactive assurance form. **Do not fill out anything at this time!** Just use one of the links at the bottom to open and print out a PDF document containing the pre-filled CAP form.

If the email address is not found within the system, ask the Member to give you the primary email address for the account.

> *The old CAP form is now being deprecated, you can find the new forms since June 2009 at https://www.cacert.org/cap.php (modified old form).*
>
> *A 2nd form, that can also be used and includes several lines for name variations in different ID documents you can find at https://www.cacert.org/capnew.php.*
>
> *Comment to maintainers: the different versions of the CAP document are confusing. Please consider adding at least effective date and perhaps version number (not just copyright) to each one.*

Non-Members

The first question from the Assurer to the Assuree should be:

> Do you have an Account at www.cacert.org ?

Mark the users answer with your individual notation somewhere on the CAP form eg.

> [+] Account exists
> [-] Account doesn't exist (see below note on 'pending account creation')

If the user answers YES

> ask if the presented email adress is the primary email adress of the assurees account

If the user answers NO proceed with this section on Non-Members

If the user has not yet created the account, you will not be able to find it. In this case, the user is not yet a Member, and you should ask her to create her account and become a Member before doing the Assurance.

In some circumstances, such as mass Assurance Events like CeBIT or a chance meeting, it may be reasonable to do the Assurance in advance of the user becoming a Member. However, this should be avoided where possible, as there are some security and legal risks if a person is assured first and the account is created later. For instance, the user will not have had time to read the CCA, which she could more easily do online or later on (at these events, always have copies of the CCA to hand out).

Also you should be able to give the bonafide member a quick overview about and at least the two essential topics within CCA:

- To be bound into CAcert's own Arbitration (CCA 2.1 Risks, CCA 3.2 Arbitration as Forum of Dispute Resolution)
- Liablitiy is limited to 1000 Euro (CCA 2.2 Liabilities)

Suggested Procedure: *In the case where you decide to go ahead and do the Assurance with a non-Member, in advance of account creation and full acceptance of the CCA, follow this procedure in order to protect the non-Member and yourself*:

- *the member-to-be ticks the "I agree to CCA" statement over her signature,*
- *you mark it* ***pending account creation.***
- *you give her a copy of the CCA, or tell her where to find it.*
- *give her your email address so that she can instruct you to destroy the form if she chooses not to agree and become a Member.*

In this way, you indicate that the member-to-be will have time later on to read the CCA, and on account creation, she will confirm her agreement. If the account is never created, the agreement is null and void, and your CAP can be marked so or destroyed. Meanwhile, you and she have both agreed to conduct the Assurance under CAcert's policies and dispute resolution procedures.

Inform yourself about the documents the applicant wants to present

You should ask the applicant which ID document s/he wants to present. Remind him/her that you have to see the originals of at least one (two are preferred!) *photo IDs, at least one of them has to be government issued* containing the birth date. If s/he wants to present unusual or foreign documents please inform yourself in advance how these documents should look. You may use the page AcceptableDocuments as a starting point for such a research.

You may want to ask the applicant to check expiry dates of the documents, so s/he does not leave you in the difficult situation of deciding whether expired documents are valid.

Plan the meeting

You have to meet the applicant face to face and shake hands with him/her. No assuring on the phone, not even via video phones!

So you have to find a meeting place. If your employer tolerates this, your office may be a good meeting point. Of course you can meet at your home if you want to. Otherwise some not too crowded pub would be a nice place.

Take the pre-filled CAP form to the meeting, and don't forget a ballpoint pen, since the applicant has to sign the form!

The meeting

Please try to make sure that you are not in a hurry during the meeting. You should have at least five minutes to check the documents and let the applicant sign the form! Take your time.

Shake hands with the applicant, maybe give him/her a nice smile. Give the Member a business card with your Name, email address and title of CAcert Assurer, if possible. This can be handwritten as well, CAcert is a community not a corporation.

Checklist

Things you should check:

1. The data contained in the documents (Names and date of birth) is identical to that on the CAP form.
2. Ask if the account is already created.
3. Ask if the email address is the primary address of the account. If unsure, copy down alternates.
4. Verify that the applicant has checked the "I agree to the CAcert Community Agreement". If time allows explain the key points of the CCA (liability and arbitration). Maybe hand out a printed CCA.
5. Let the applicant sign the CAP form.
6. Verify the person against the documents.
7. Note the kind of presented documents (like passport, ID-card, driver's license) and possible name variations (additional middle names, academic titles, birthnames...) on them. If names in the documents differ from the (pre-printed) name on the CAP form copy the name from the documents as exactly as possible to the CAP from. The CAP form is your only evidence of what you have seen!

    > For names or name parts:
    >
    > Allow only names or name parts (i.e. suffixes) that you can verify at least against one govermental photo ID

Some points to keep in mind:

- Picture
    - In some countries driver's licenses never expire so you have to be aware of very old pictures and signatures.
- Signature
    - it is preferable that the customer makes her/his signature on the form while the assurer is watching.
    - If the form is already signed ask the applicant to repeat the signature somewhere else on the form.
    - if the customer's signature is not recognizable ask him to sign comparable to the signature on the document
    - (sometimes newer bankcards are good indication if the signature changed dramatically, but it is forbidden to copy down details from financial cards. Hold your thumb over the sensitive numbers, or ask the Member to hide the numbers.).
    - if any document is not signed please ask the customer to sign it now.
- Security Features
    - stamp must be seamless on picture and document
    - holograms
    - special printing techniques like fine print and colors
    - special paper
    - *human readable* data should match the machine readable zone on the document.
    - watermarks
- Expiration date
    - driver's licenses often have none (depends on the country).

  - passport usually has one (typically 10 years)
  - expired documents are acceptable as indication, you may reduce the points you give.
  - you should inform the customer if documents will expire soon.
  - Do date of issue and expiring date make sense and result in a sensible validity duration (i.e. 10 years), issue day and expire day have to be different of at least one day i.e. June 15th to June 14th
- Date of birth
  - don't get confused by the different formats all over the world. Check your input twice if the formats are the same on the form, the documents and the web interface. If the date in the web interface is wrong, it must be changed BEFORE you can give the points. File a dispute to get it changed.
  - does the member seem to be around that age?
  - consider rewriting it in your own writing if the Member's version is ambiguous
  - Note the numeric month in character short month format (this helps to reduce DoB errors about 50 % !!! don't ask why? 🙂)
- Names! The Assurance works with Name variations.
  - Write down any additional names on the form.
  - The online account should include the longest and fullest form of the name possible.
  - The Assurance is over one or more Names. Carefully write down each name variation fully on the CAP form against the document that it is found on.
  - Often you will find the Name on the CAP is different to the name on the ID documents, and again the online web interface is different again. Discuss with the Member what the best form of the name should be, and consider filing a dispute to get the online web interface name changed to the best form.
  - artist names are officially-recognised alternate names that a person in an artistic field uses. As they are supported by the documents, they can be Assured.
  - consider rewriting it in your own writing if the Member's version is ambiguous
  - remember about the short rule: Allow only names or name parts (i.e. suffixes) that you can verify at least against one govermental photo ID
  - in general: its allowed to reduce information, but it is prohibited to add informations
    - often bonafide members gets encouraged to enter their title as suffix in the Join form and find the samples on the linked wikipedia site, but these titles aren't in any govermental photo ID. So these suffixes cannot be assured. Not in the face-2-face meeting, nor later on the online form.
- Test Questions:
  - place of birth
  - place of issue
- Note that unique numbers on Identity Documents **should not to be stored** due to problems with liability and the potential to cause ID theft.

For names or name parts:

- in general: its allowed to reduce information, but it is prohibited to add informations

CAcert Assurance vs. Pure Id Document Check

- CAcert's Assurances has a wider purpose

Purpose of Assurance	Pure Id Document Check	CAcert Assurance
Member		Check for Account
Account		Check Primary Email
Certificates		Check Arbitration Acceptance
Arbitration		Disclose R/L/O Check CCA Acceptance
Some Data	Id Document Check	Id Document Check

- Disclosure of R/L/O -> Risks, Liabilities, Obligations
  - **R**isks -> You may find yourself subject to Arbitration
  - **L**iabilities -> limited to 1000 Euro
  - **O**bligations -> to keep your primary email in good working order

Things to discuss

Have a little chat with the applicant, if time permits and both parties are interested. 🙂 As a representative of CAcert, you the Assurer may find yourself helping the Member in wider aspects of the Community. Some general things to discuss are:

- What it means to be a Member. In 2007, the Community became more organised with the introduction of the CCA. Members agree to that document, although like all contracts and legal blah blah, it is likely that the new Member has not read it all or understood it all. You as Assurer have read the CCA, and can introduce some important ideas to the new Member.
- The Assurance covers the 5 points listed in " The Assurance Statement" of the AP. It is not just a check of Identity.
- Security and Obligations. In CCA there are a set of obligations which can be discussed: things like looking after your private keys, and understanding the difficulties of modern virus-ridden platforms, complicated websites and script-driven browsers.
- Arbitration and dispute resolution. As a Community, we resolve our disputes internally. For some people this is scary, as they believe in the protection of their own courts. It is often good to point out why Arbitration works for CAcert: in the international context of the Internet, Arbitration means we can protect the Member from disputes in far away places. See the section on Arbitration in this Handbook, and DRP's last section for more discussion on this.
- What the Member wants to use certificates for. It is generally hard to figure out how a lot of technology is used in the field, and meeting someone is a good time to get a view. As a user, the person finds difficulties and experiences that the more technically-oriented people are blind to. This is your chance to **listen** to user experiences, and think strategically about how to improve her security.
- Helping CAcert: Try to find out, in which area the Assuree has skills. What hobbies he has. What kind of job he is doing. CAcert searches for volunteers in many places: Assurers, Events, Presentations, Support, Documentation, System administration, Development, Deployment, Arbitration, Communicators, Consultants, Managers ... make a note on the CAP form for which area the Assuree is interested in and forward the contact details to the appropiate team leader by CC'ing the Assuree to the email you'll send.

If you do get a chance to discuss anything with the Assuree, it is good to make a small note on the CAP form about what it was.

After the meeting

If you did notice anything unusual, make some notes on the backside of the CAP form. Things you should note include (but are not restricted to):

- very unusual documents
- very old or worn documents
- if something "just didn't feel right"
- the applicant tried to hurry you through the process
- Something unexpected did happen

Those notes might help you to remember what happened later, just in case a dispute is filed and someone asks you about details of the meeting.

Issuing Assurance Points

Now login to the CAcert website, go to https://secure.cacert.org/wot.php?id=5 once again and enter the applicants email. Now fill out the assurance form, check the data once again and issue your points if there are no reasons against. If the situation was not ideal you should give less points, see Assurance/PracticeOnIdChecking for some guidelines about the number of points to give.

The meaning of the Assurance Points is your expression in the confidence of the Assurance Statement. If you are completely sure, issue maximum points. From AP4.3, completely sure means:

- Detail on form, system, documents, person in accordance;
- Sufficient quality identity documents have been checked;
- Assurer's familiarity with identity documents;

- The Assurance Statement is confirmed.

If the documents look good but are unfamilliar to you (like foreign documents), you may decide to issue partial points (although some Assurers choose to issue only maximum or none).

There are two special cases: if you have no confidence in the Assurance Statement, then issue zero points. This will most often occur if the documents are totally unfamiliar to you. For example, a Finnish driver's license presented to an Australian Assurer at an event in Chile! The documents mean nothing to you, but as you have still made a good faith attempt to do the Assurance, it is good to record that fact. It is still worth experience, and your CAP form is still a good record. Advise the Member that this may happen, and the reasons why, so as to maintain good faith.

The second special case is if you have *negative confidence*. That is, you think there is something wrong, such as some of the documents are false or inconsistent. In this case, do not complete the Assurance (do not sign the form and do not press the "I am sure of myself"-Button on the web application), but instead consider filing dispute.

Remember the following issues:

- do not log in from a Computer which is not secure (possibly has any malware like viruses and trojans on it).
- do not use other people's computers unless you are sure that you can trust them. If in doubt do it from a Live-CD like knoppix.
- use an up-to-date browser and go to https://www.cacert.org/.
- **FOR SECURITY REASONS: LOGOFF AND CLOSE THE BROWSER WHEN WORK IS DONE**.
- If someone tried to use faked IDs or otherwise tried to obtain an assurance by fraud, file a dispute by emailing support at c.o.

What about that CAP form?

As well as the Assurance details (Name, primary email, DoB), the CAP form (short for CAcert Assurance Programme form) must contain AP4.5:

- applicant's signature *made by his/her own hand*.
- applicant's permission to conduct the Assurance.
- applicant's acceptance of the CCA and thus the risks, liabilities and obligations of membership.
- Your Name
- Assurance points you allocate
- you CARS:
    - you agree to the CCA,
    - you are an Assurer (have done CATS Challenge, have 100 Assurance Points),
    - that you have conducted the assurance to Assurance Policy,
    - all covered by your signature.
- Date and location (reminder) of the Assurance

For the old-style one-way Assurance, cross out the fields for your email address and Date of Birth, as desired. (Note that we are now preferring the mutual Assurance where possible.)

Mutual Assurance. For a mutual Assurance, fill them in (or use two CAP forms). If the other Member is not an Assurer as yet, then

1. if the other Member is unsure, you may keep the CAP form(s) on her behalf (and take responsibility for both Assurances) which is why the form itself has both sets of details on it.
2. if the other Member is about to become an Assurer, or you otherwise judge the Member is capable of meeting the storage requirements, then she may keep her CAP form recording her Assurance over you.

Storage. The Assurer has to **securely keep the paper CAP form for at least seven years**. You are personally responsible for this (and in the mutual assurance with a non-Assurer, you remain responsible!) ! It is your evidence that you have followed CAcert's Assurance Policy and that you met the applicant in person (face to face).

For data protection and privacy reasons no-one else should have access to the CAP forms, once completed. **Do not scan the CAP form and keep it electronically.** CAcert's Assurance is deliberately designed to create a paper foundation on which digital certificates are issued; by maintaining a base of paper, the digital framework is strongly constructed with a classical legal foundation. Not only does scanning weaken that foundation, you may also violate data protection laws on electronic data storage.

In the case of a dispute you may be requested to send the original paper form to a CAcert Arbitrator. See below for more details.

If you find yourself unable to keep the CAP forms for whatever reason, file a dispute at ✉ support@cacert.org, explain the circumstances, and request the Arbitrator to provide instructions.

Sending CAP forms to CAcert by request

An Arbitrator may request you to send him the CAP forms, maybe because there was a complaint about a certificate or just as part of a quality assurance process. CAP forms contain personal data, so the requester has to be authorized to see them and you have to make sure that no-one else can read that data.

- Verify that the requester's email is @cacert.org. No other TLD (like .com, .net etc) is allowed!
- Verify that the requester is an Arbitrator or Case Manager for a case relating to the person who has signed the CAP form. Current Arbitration cases are listed at ArbitrationCases, the Arbitrator/Case Manager should have stated the case number in her request.
- The request will be sent to you either signed by a CAcert verified PGP key or using a CAcert-issued S/MIME certificate. Please ensure that the certificate is valid and issued/signed by CAcert.
- If you do not know how to reliably verify a signature please ask someone for help on on IRC (irc://irc.cacert.org/cacert or irc://irc.cacert.org/cacert.ger) or one of the mailinglists (like ✉ mailto:cacert@lists.cacert.org or ✉ mailto:cacert-de@lists.cacert.org). This is **not** a trivial task, don't just trust your mailer's icon!
- Usually you will be requested to send a scan of the CAP form. Please make sure that you send the image using an encrypted mail. If you cannot send it encrypted for any reason, send a copy of the form via paper mail. After you confirm receipt of the scanned CAP form, delete your digital copy carefully.
- If you are requested to send in the original CAP form, keep a copy of it in your documents. *N.B.: I have not heard of this being requested, but it may be necessary some time.*
- If you have **any** doubts about a request ask for help. Once again, try IRC or mailing list(s)! If the request tries to discourage you from getting help (stating it a top secret business or something like that) there's something fishy about the request!

Fees

- Certificates are free! Customers create them themselves using the web interface.
- Assurances may cost money but the price has to be set out *before* the meeting. Otherwise it *must* be done at no charge.
- If you choose to demand money for the assurance, keep it to a sensible amount of "expense recovery". If the applicant visits you, something between 5 and 15 EUR seems sensible in central Europe. If you visit an applicant yourself you may add travel expenses.
- Note: if you demand money for the service of assurance this may make you a commercial service provider, which, in turn, may have other legal consequences (like paying taxes, the need for a trade license or such things), depending on the laws of your country.

Assurance Events

You may be asked to be an Assurer at an Event. Have a look at EventOrganisation. This is a great opportunity to build up experience as an Assurer because you will be working with other experienced people, and you can discuss all sorts of issues and difficulties. This should also be reflected in your Experience Points!

The Standard of Assurance

IMHO this paragraph still needs some work to be less confusing for newbie (and experienced) assurers.

The CAP links to this handbook for a definition of the "Standard of Assurance", so it has to be done. I'm still thinking about it, if you have an idea feel free to propose it. BernhardFröhlich

Also, see Assurance Policy (POLICY) *... which should nail down the Standard of Assurance ... once and for all* ☺ *iang.*

AP5 puts the responsibility of the standard of assurance on the Assurance Officer, stating that this role includes:

> *Maintaining a sufficient strength in the Assurance process (web-of-trust) to meet the agreed needs of the Community.*

The customary standard includes these points:

1. For a full-points Assurance, at least one government-issued photo ID containing the name and date of birth must be verified by the Assurer.
    - Acceptable forms include Passports, Drivers Licenses and National Identity Cards.

      This may be customary - and even preferred - but does not actually match up with AP - as far as I can see, the only requirement is for the name to be in the photo-ID doc (AP 2.1) and that "Sufficient quality identity documents have been checked" (AP 4.3). As far as I can see the DOB in photo ID requirement is not mentioned specifically elsewhere in either AP or Assessors Handbook!

      It is required that the date of birth is validated, but, as far as I can see, that can legitimately be done from other documents (such as a birth certificate) provided the name matches. (There may be an issue here if someone has had a name change (eg on marriage) but I believe that provided there is a "chain of evidence" that is examined (ie the document causing the name change) this ought to be acceptable)

      This is particularly relevant in countries that have either no formal national ID or have many that could be regarded as acceptable! ✉ *Alex Robertson*

      > *We do not want to repeat the AP here. Here we want to give simple procedures which remain "on the safe side" of the AP. The list of documents is not complete, and constantly expanded at AcceptableDocuments, but these are the most common ones. If you deviate from these procedures you should take care of documenting very comprehensible (sometimes Arbitrators can be really dumb!) why you were sure that the document you checked met the requirements of the AP.* BernhardFröhlich
2. For a Name to appear in a certificate, the Member should have been verified by at least two Assurers.
    - Exceptions see below in "Major Variations".

Your Assurance is a CAcert Assurer Reliable Statement, or CARS. This means that anyone in the community may rely on your statement.

Minor Variations

An Assurer may control minor variation, such as poor quality ID or missing ID, by reducing Assurance points.

It would be extremely unusual to issue full points if the Member does not have a good government-issued photo ID. On the other, such an ID does not mean full points; look at the additional documents to confirm.

Major Variations

Four Major Variations exist to the above

- the TTP programme, see FAQ/AssuranceByTTP. ***Suspended.***
- the Super-Assurer programme, see SuperAssurers. This programme is administered by the board and can result in an Assurer getting more experience points temporarily.
- Tverify, which takes certificates and other information from other CAs. ***To be Terminated Permanently on 16th November 2009.***

- the Organisation Assurance programme, see OrganisationAssurance.

All about Names

Name Matching

The relevant policy text for name matching is Chapter 2.1 and 2.2 of the Assurance Policy. More specific information as well as many examples can be found at PracticeOnNames.

Transliterations

Usual transliterations, missing accents and similar things are accepted. So if the ID doc says "André Müller" but the name in the account is "Andre Mueller" that's OK.

Note that the reason for accepting plain ASCII representations of non-ASCII characters are usual restrictions of computer environments. Therefore it is not accepted to assure someone as "Müller" if the ID documents contain "Mueller".

Still it's not well defined how names of other character sets (like for example Chinese or Hebrew) should be handled. The Assurance Policy encourages using exact representations in unicode, but allows transliterations. Transliteration rules can be found at http://en.wikipedia.org/wiki/Transliteration

Case Sensitive - Case Insensitive

Following was from the Assurance Policy work, for consideration now in the Handbook:

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  [[http://en.wikipedia.org/wiki/Transliteration|Transliteration]] of characters as
defined in the transliteration character table ([[http://svn.cacert.org/CAcert
/Policies/transtab.utf|UTF Transtab]]) for names is permitted, but the result must
be 7-bit ASCII for the full name. Transliteration is one way and is towards 7-bit
ASCII. Transliteration is a way to compare two names. However transliteration of a
Name makes the Name less discriminative.

  In general names are handled case insensitively.

  Abbreviation of second given name(s), middle name(s), titles and name extensions
in the name of an individual to one character and the dot indicating the
abbreviation, is permitted. If the first given name in the ID document is
abbreviated, the first given name in the web account Name may be abbreviated.
Abbreviation of a name makes the name less discriminative, so it is deprecated.

  A Name on an ID which has initials (abbreviations) for titles, name extensions
and given names, and/or transliterations as defined in the transliteration table
can be taken into account for assurance for a Name in the account which is not
abbreviated or transliterated.

  Titles and name extensions in the name of an individual may be omitted.

  The assurance ambition is to pursue a highly discriminative assured Name in the
account. The ambition is to have only a Name in the account which has no
abbreviation(s), no transliteration and is case sensitive.
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End of insert from WiP-AP.

Arbitration case a20090618.13 Opinion

Naming and the writing of names is a complicated subject that follows different rules in different cultures. Even within a culture there is a multitude of difference in how names may be spelled.
Capitalization is the subset of name spelling at issue here. There are a multitude of countries in which the script used differs wildly from western letters. In such scripts capitalization may not even exist. Names that are transliterated from such scripts would then have an arbitrary capitalization, since who is to say which parts of such a transliterated name are capitalized.
The claimant has himself stated that often times names in official documents are spelled in all capital letters although the name would generally be spelled with an initial capital letter followed by letters in lower case. So it is evident that even within the culture of the claimant capitalization rules for names (especially when

taken outside the context of sentences) are unsettled.
However there are instances where capitalization of names does make a difference. As an example one can think of McCain or DeHaviland. Both names are properly spelled with a capital letter at the beginning and the interior of the name. Capitalizing correctly here may alter the name significantly at least within the culture of origin.
As a result naming and name capitalization is not something that can easily be prescribed.
However at question here is really whether an assurance of a name spelled with unusual capitalization is permissible. In order to answer that question one only needs to look at the Assurance Policy, which states:

```
1. Assurance Purpose

The purpose of Assurance is to add confidence in the Assurance Statement made by
the CAcert Community of a Member.

With sufficient assurances, a Member may: (a) issue certificates with their assured
Name included, (b) participate in assuring others, and (c) other related
activities. The strength of these activities is based on the strength of the
assurance.
1.1.The Assurance Statement

The Assurance Statement makes the following claims about a person:

   1. The person is a bona fide Member. In other words, the person is a member of
the CAcert Community as defined by the CAcert Community Agreement (CCA);
   2. The Member has a (login) account with CAcert's on-line registration and
service system;
   3. The Member can be determined from any CAcert certificate issued by the
Account;
   4. The Member is bound into CAcert's Arbitration as defined by the CAcert
Community Agreement;
   5. Some personal details of the Member are known to CAcert: the individual
Name(s), primary and other listed individual email address(es), secondary
distinguishing feature (e.g. DoB).

The confidence level of the Assurance Statement is expressed by the Assurance
Points.
```

Specifically at issue is item 5 of the Assurance Statement, because the question is whether a name "is known" to CAcert if the capitalization is arbitrary and potentially different from the presented Identification Documents. In other words:

If I tell you that my name is "philipp dunkel" do you then know my name?

In this specific case I would answer that question with yes. However that is a judgment call that will depend highly on the name and culture at issue. Throughout the Assurance Process the Assurer should be guided by their own sound judgment. In fact the entire system of the CAcert Web of Trust is based on us trusting an Assurers judgment. Since none of the items mentioned in point 3.1 of the Assurance Policy as guidelines resolve the issue of capitalization the Assurer is allowed, or in fact required, to use his own judgment.
So on the question of whether the claimant may complete this Assurance as requested in the original claim:

- There is nothing that would explicitly prohibit this Assurance from being completed at this time.
- However whether the Assurer feels confident that CAcert knows the Assurees name given the capitalization, he will have to use his own judgment.

Middle names and Initials

According to the AP it is preferred that all given names which can be verified in one of the ID documents are recorded in the account.

If a person has multiple given names (or middle names) at least one given name must be used in the account unabbreviated. Additional names may be omitted or abbreviated, usually to the first character with or without a dot to indicate the abbreviation.

So someone called "Bernhard Andreas Fröhlich" may create his account as "Bernhard Fröhlich", "Andreas Fröhlich" or "Bernhard Andreas Fröhlich". Initials are deprecated, but are currently tolerated, so if the said person would use the name "Bernhard A. Fröhlich" this would currently be OK.

But remember, you may not assure an Account with a name you did not see on at least one ID document! If all ID docs state "Bernhard Fröhlich", assuring him as "Bernhard Andreas Fröhlich" is prohibited!

If the name on the presented ID documents is not identical to that on the CAP form it is the best to note the name as exactly as possible somewhere on the paper, including all given/middle names. If the account is disputed later then you can remember the exact name you've seen.

Multiple Names, Pseudonyms

According to the Assurance Policy (POLICY), multiple names are accepted, if matching ID documents can be presented.

Currently the CAcert software cannot handle them, but if you note them on the CAP form you can assure them later once the feature is implemented.

Practice On Names

- PracticeOnNames

  To CAcert.org Education & Training - To CAcert.org Education & Training Overview
  To Assurance Policy - To Assurance Handbook

Practice on Names

Currently this is an interpretation based on the Assurance Policy at http://www.cacert.org/policy/AssurancePolicy.php#2.1 to specify more clearly how to match names found in official ID documents with names stored in CAcert accounts.

It is intended to be a bit on the safe side and might be more restrictive as the policy itself. Also the interpretation concentrates on "western names". Though some thought has been given to other regions, it might be not suited well to special situations. If you encounter such a situation, feel free to explain it on the Education mailing list.

Non-policy Notes:

- ~~*This probably belongs in the Assurance Policy.*~~
- ~~*This needs a linkage from Assurance Handbook that clearly explains what are the rules, how much we can rely on this document. I.e., either this document is acceptable and approved practice in Names variations as per AP, or it is ... not!*~~
- ~~*There were some discussions on -policy about this during April which should be considered first. [samj]*~~
- *There needs to be a linking into the CPS on how the Names are used.*
- *This document is now part and included in the Assurance Handbook*

General Standard

It is preferred that the name used in the account can be matched exactly to the name as written in at least one government-issued Identity document.

For several reasons some deviations of this preferred standard are accepted.

Basic, Simple, Strict Rules

1. **We assure only names, that we can find in at least one ID document.**

   We assure only names, that we can find in at least one ID document.

2. **Its allowed to reduce information, but its prohibited to add information.** (The data of the ID documents does not have to be used completely, that is not all given names have to be used and

names may be abbreviated under certain circumstances.)

Its allowed to reduce information, but its prohibited to add information.

3. **Always document missing names on the CAP.** (A person may have multiple names as long as they are verifiable with official ID documents)

Document missing names on the CAP.

4. **Transliterations are accepted** because of technical reasons (8bit to 7bit conversions)

Transliterations are accepted

5. We use **Case-Insensitive**

Case-Insensitive

Clarifications

- It is always preferred to have the name(s) in the account exactly like the name(s) in the ID documents.
- Translations of names (Matthew <-> Matthias) are not accepted (Reason: it is too complicated to verify translations)
- Initials of first and middle names are depreciated but accepted (Reason: Rule #2, but this may be open for discussion. Maybe at least one given name should be used completely?)
- Middle names and academic titles may be omitted (Reason: Rule #2)
- Diacritical marks (accents and similar things) may be omitted (Reason: Rule #4)
- If transliteration is used it has to be used on the whole name, result must be 7-bit ASCII (Reason: Otherwise technical reasons are not plausible)
- In general names are handled case insensitively. If usage of different cases is very unusual or could indicate abuse, a dispute should be filed to clarify the specific case.

Examples

Allowed Variations

Name(s) in ID doc	Name(s) in CAcert account	Remarks
Bärbel Renate Fröhlich	Bärbel Renate Fröhlich	preferred variant
Bärbel Renate Fröhlich	Renate Bärbel Fröhlich	ordering of given names is arbitrary
	Baerbel Renate Froehlich	Transliteration
	Bärbel Fröhlich	middle name omitted
	Renate Fröhlich	first name omitted
	Bärbel R. Fröhlich	acceptable since two name parts (including the family name) are complete
Dr. Bärbel Fröhlich	Bärbel Fröhlich	like middle names, academic titles may be omitted
Κάρολος Παπούλιας	Κάρολος Παπούλιας	preferred variant
	Karolos Papoulias	Transliterated according to ISO 843
Κωνσταντίνος Καραμανλής	Konstantinos Karamanlis	ISO 843, diacritical marks omitted

Борис Николаевич Ельцин	Boris Eltsin	According to AcceptableDocuments this would be the "official" translation in the passport. Note that if the translated/transcribed name is contained in a ID document this translation should be preferred to manual transliteration using ISO or other rules.
Anis Mohamed Youssef Ferchichi, artist name Bushido	Bushido	if an artist name is included in official ID documents it may be used in a CAcert account.
	Anis Mohamed Youssef Ferchichi	of course the "official" name may also be used
Peter de Vries	Peter de Vries	where: 'Peter' is the given name and 'de Vries' is the last name (preferred variant); see also Dutch usage of Tussenvoegsels; there exists no lists in the CAcert system that needs special name ordering; see also a20090618.9 on how to entering Tussenvoegsels into the system
Paulus de Vries	Paul de Vries	known NL country variation (read below). Requirement: citizen of the Netherlands
Hans-Peter Fröhlich	Hans Fröhlich	It is allowed but deprecated for german people. See the chapter on "Hyphen Rule" below.

Forbidden variants

Name(s) in ID doc	**Name(s) in CAcert account**	**Remarks**
Bärbel Fröhlich	Bärbel Froehlich	either transliteration everywhere or nowhere
Bärbel Froehlich	Bärbel Fröhlich	transliteration works only one way
Bärbel Fröhlich	Bärbel Renate Fröhlich	Middle name is not in ID documents
Bärbel Fröhlich	Bärbel F.	Family name must not be abbreviated. Even if all names are given names, like for example in Indonesia, at least two names must be included without abbreviations (if present).
	Fröhlich	If there is a given name in the docs at least one has to be used.
Bärbel Fröhlich	Dr. Bärbel Fröhlich	Academic titles, like middle names, have to be contained in at least one ID document to be assured
Bärbel Renate Fröhlich	B. R. Fröhlich	At least one given name must be used completely.
Борис Ельцин	Boris Jelzin	not transliterated but transcribed (translated phonetically)
William Gates	Bill Gates	Though a usual nickname it is not acceptable, since it cannot be found on any document.
Matthias Beckett	Matthew Beckett	No translation of names

Note: If ID documents for other alphabets also contain the name(s) in Latin characters, like many passports do, these would be acceptable even if not conforming to ISO transliteration rules, because they are contained in official documents.

Practice on Suffix

see Wikipedia Suffix (name)

Suffixes are often a problem and leads into arbitrations, as suffixes mostly not added into ID docs. But this isn't noticed onto the join form ☹

Despite the fact there is a link on the join form, most suffixes cannot be accepted, 'cause they are not listed in any ID docs. So the simple rule here is: prevent adding suffixes and only accept suffixes you may find in at least one ID doc.

If you find a suffix in the online account, ask the assuree, to correct his name in the online account or if once received assurance points, ask Assuree to file a dispute.

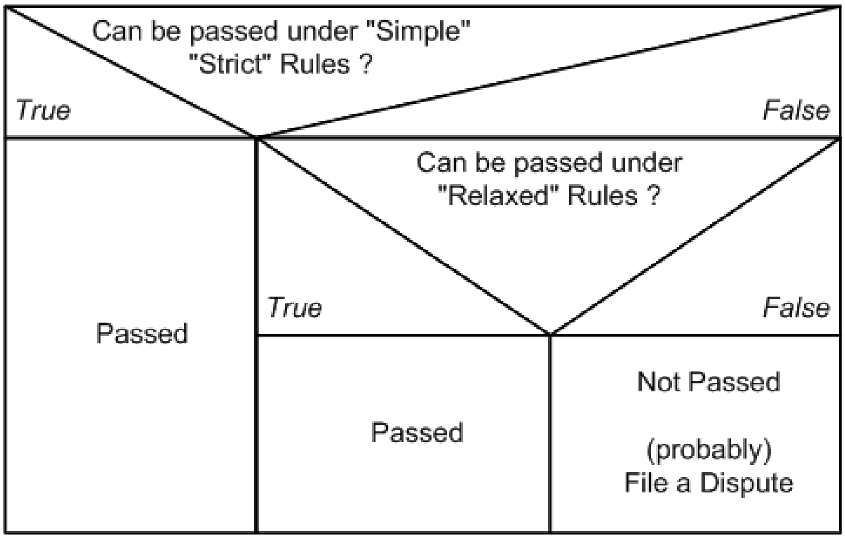
- read also: *Potential precedent case: a20110119.1* (... to process name change requests which are transitions satisfying the requirements of PracticeOnNames.)

Relaxed Rules

The relaxed rules follows the general strategy as defined at PracticeOnIDChecking - CCA/AP requirements

```
Hence, the Assurance Statement goes some distance to detune or soften the need
for pure identity documents ... as long as we can reliably get the guy to
Arbitration, the precise Name and Documents matter less.
```

Top Down Procedure to handle Strict and Relaxed Rules


Can be passed under "Simple" "Strict" Rules ?
True
False
Passed
Can be passed under "Relaxed" Rules ?
True
False
Passed
Not Passed
(probably) File a Dispute

1.	First check on Strict Rules	Can case be handled under Strict Rules?	Pass, otherwise continue 2.
2.	Second, check on Relaxed Rules	Can case be handled under Relaxed Rules?	Pass, otherwise continue 3.
3.	File Dispute	Bring case before an Arbitrator	Await ruling

Relaxed Rules: Extended Assurers task

All cases that ends with **Not Passed** have to be passed to Arbitration or to the Assurance team for a review. Follow the simple rule: document all Names you've read an ID doc, and all names of all the ID docs you've get presented (e.g. use backside of the CAP form)

> One of the requirement to allow relaxed rules is the quality in documentation by the assurers. In case of an arbitration, the Arbitrator can request required infos from the Assurer. If documentation is missing or is incomplete, the Assurer and CAcert has a problem.

Hyphen Rule

For the purposes of checking the Name against PoN, a hyphen in given names is to be treated as optional.

The reasons for this are detailed in the Arbitration Precedents Case a20100302.1.

Since, in contrary to other countries, German custom and practice considers the hyphen as an essential part which connects two given names to one single name, German members are advised to use names in their account accordingly.

But since it is not possible for Assurers to verify every aspect of name customs it is considered acceptable to leave out the hyphen and treat two hyphenated names as different names if the member insists on it.

So acceptable variants are:

Name(s) in ID doc	Name(s) in CAcert account	Remarks
Hans-Peter Meier	Hans-Peter Meier	Preferred variant!
	Hans Peter Meier	deprecated but allowed if the member insists
	Hans Meier	deprecated but allowed if the member insists
	Peter Meier	deprecated but allowed if the member insists
	Peter Hans Meier	deprecated but allowed if the member insists

Note: CAcert can not and will not enforce every aspects of national laws and customs.

Country variations

regarding AP 2.2. Multiple Names and variations

The Known Country Variations section gives advice to the Assurers, how they can handle Names according to the descriptions given in each individual section

Known Country Variations:

- NL
  - Tussenvoegsels
  - a20090618.12 Abbreviations on given names are allowed under the given circumstances (read ruling of case a20090618.12) advanced by ruling a20091128.2
  - Nederlandse Voornamen Databank
    - To the Assurers:

      Starting 2009 with the ATE's Assurers learned to allow only such names in Account that match the ID docs (strictly). However, as the name rules are in flux, the Dutch "roepnaam" problem hasn't been investigated deeply before the first dispute filings started. Since the ruling of precedents case a20090618.12 new infos received the Assurance Officer and also the Arbitrators about an existing **Nederlandse Voornamen Databank**. So on any doubt also international Assurers can check Dutch common short name variations against the name found in the ID doc. But consider, this rule is **no** clearance for general Nicknames. Like me, my given name is Ulrich. This is every time a problem for people from Anglo-American culture to speak, so I moved to the "Rufname" or "roepnaam": Uli. This is to read as a Nickname, because

      a. it doesn't follow the Dutch common short name variation (country variation, that is allowed under AP 2.2), from the Nederlandse Voornamen Databank: Ulrich relates to Oldrik
      b. I'm not a citizen from the Netherlands, so the Dutch country variation doesn't apply

    - **ij** vs. **y** (digraph) **- Y** is a known common substitution in the dutch language for **IJ** (see references Netherlands Language and Languages (Alphabetical Order) and http://en.wikipedia.org/wiki/IJ_(digraph)) (added 2011-02-07 by AO).

        Definition: In the Dutch language, the letter combination ij is considered a single letter. It has the same value as y, and it is usually alphabetized as if it were a y.

        (see also: Indonesian place name spelling issues)

- BE
    - As Belgium is bilingual you have to decide whether you are dealing with a Flemish firstname "roepnaam" then see the Netherland country variations. If you are dealing with French first names see the French country variations.
      Please contact Assurance Officer if you have further details so we can update these infos.
- China
    - *Personal names in Chinese culture follow a number of conventions different from those of personal names in Western cultures. Most noticeably, a Chinese name is written with the family name first and the given name next, therefore "John-Paul Smith" as a Chinese name would be "Smith John-Paul". For instance, the basketball player Yao Ming should be addressed as "Mr. Yao", not "Mr. Ming".*
    - To prevent missusage, a Chinese name has to be entered into the online system as defined:
        - Givenname(s) into the Givenname and/or Middlenames field(s)
        - Lastname / Surname into the Lastname field
    - Please mark on your CAP form, which Name part is the Givenname and which Name part is the Lastname as read in an ID doc
    - The resulting Names line has to be read: Givenname(s) Lastname
    - If this doesn't happen in the online form, you cannot finish the Assurance, and the Assuree has to correct his name in the Online Account
    - By transferring the Assurance from the CAP form to the Online form, and you read the names switched around, ask the Assuree to correct his name in his Online account or file a dispute for name correction (Givenname / Lastname switched around case)
- Spain
    - Naming System in Spain (also covers hyphenations)
        - Nominal conjunctions are optional. Nominal conjunctions are for better identification of surnames from other name parts. ID docs probably drops nominal conjunctions.
            - The particle “de” (from)
            - The particle “y” (and) (also i, e)
        - Though Spanish people generally have two surnames, one surname (generally the paternal) is sufficient. Portuguese people have up to four surnames, here again one is sufficient.
- FR
    - In French culture, the fullname is often written

```
    LASTNAME, Givenname1, Givenname2, .., GivennameN
```

    - To prevent missusage, a French name has to be entered into the online system as defined:
        - Givenname(s) into the Givenname and/or Middlenames field(s)
        - Lastname / Surname into the Lastname field
    - The resulting Names line has to be read: Givenname(s) Lastname
    - If this doesn't happen in the online form, you cannot finish the Assurance, and the Assuree has to correct his name in the Online Account
    - If a name is written as LASTNAME, Givenname on the CAP form, the Givenname and Lastname part are identifiable as this is a known definition on writing names.
    - But this format is prohibited in the Online form
    - By transferring the Assurance from the CAP form to the Online form, and you read the LASTNAME, Givenname variant, ask the Assuree to correct his name in his Online account or file a dispute for name correction (Givenname / Lastname switched around case)
- GR
    - Deliberations on Greek givenname variations can be found under a20091231.2
    - So there is a known list (may be incomplete) of common Greek givenname variations that are optional

a. Γεώργιος/Γιώργος -> Geōrgios/George
    - Greek version of Wikipedia: Geōrgios/George

b. Ιωάννης/Γιάννης -> Ioannis/Giannis/John
    - Greek version of Wikipedia: Ioannis/Giannis/John
    - http://en.wikipedia.org/wiki/John_%28given_name%29

c. Μιχαήλ/Μιχάλης -> Michael/Michalis
    - Greek version of Wikipedia: Michael/Michalis
    - http://en.wikipedia.org/wiki/Michael

d. Ηρακλής -> Iraklis/Hercules

e. Θεόδωρος -> Theodoros/Theodore
    - http://en.wikipedia.org/wiki/Theodore_%28name%29

f. Αλέξανδρος -> Alexandros/Alexander
    - http://en.wikipedia.org/wiki/Alexander
    - and I am sure there are many more examples...Γεώργιος and Ιωάννης are the two most common greek male names though.

g. Νικόλαος -> Nikolaos/Nicholas/Nikolas
    - http://en.wikipedia.org/wiki/Nicholas

- Indonesia
    - http://en.wikipedia.org/wiki/Indonesian_names
    - There are a couple of Indonesian name variations known. However mononyms cannot be entered into the online system yet, as the system requires givenname + lastname to be entered and prevents mononyms (givenname or lastname only)
    - This issue is currently WIP in Software-Assessment and Policy Group
    - Please contact Assurance team until this problem is solved for further directions

Discussion

CPS / CN

This discussion is about Assurance: matching ID documents with the names recorded in a CAcert account. What it is not about, or is less about, is what Name (if any) goes into the CN of certificates.

We will need a linking statement in the CPS that states how the names are used. Something like:

- Any Name assured to 50 points by the Assurance process may be issued in the CN of a member's certificate
- Assurance Policy may provide methods for variations for Names in the CN, such as transliterations and short forms.

Just a suggestion.

Irish Country Variation

- 3 potential variants for one name
    1. O'Reilly
    2. O Reilly
    3. OReilly
        - source: The OReilly Factor

English Language short forms of names

Applies to UK, US, AU, NZ, CA and possibly others
There is a whole set of commonly used and standard "short forms" of English forenames. Examples include "Bill" for "William" and "Dick" for "Richard". (see http://en.wiktionary.org/wiki/Appendix:English_given_names and http://www2.elc.polyu.edu.hk/CILL/namesmatching.htm.) These names are often used by an individual in preference to their formal names (eg "Bill Gates". At least one example is currently awaiting arbiration and a past arbitration has ruled that short forms of names are allowable under AP 2.2 a20090618.2

I believe that it is worth adding a (non-exclusive) list of names and associated short forms that are allowable under relaxed rules for name matching purposes. Currently the example "Bill Gates" for "William Gates" is specifically not allowed under "Strict" rules but it is not clear whether this would (or should!) be allowable under "relaxed" rules x[1])- I personally believe that it should be allowable but (particularly for people who are not native English speakers) clarification would help! Alex Robertson

- u60 - x[1]) read "Top Down Procedure to handle Strict and Relaxed Rules"

Advantages and Disadvantages

From former discussion about Relaxed or Strict Rules

Ruleset	**Advantages:**	**Disadvantages:**
Strict	* supports possible objective of exporting identity documents to net * supports possible objective of asserting a "r.i.g.h.t" to a name	* Does not reflect current practice, therefore: * handling of legacy accounts has to be defined * problem to educate existing assurers, because it is stricter than some government-standard practices (e.g., Germany) * Many problems in details have to be addressed
Ruleset	**Advantages:**	**Disadvantages:**
Relaxed	* supports possible objective of helping members to use certs	* Simplifies creation of multiple assured accounts for the same user * Assurers have to be educated about "official CAcert" rules of transliteration * Rules are more complicated (at least at first glance...)

Further readings

http://en.wikipedia.org/wiki/Transliteration

http://en.wikipedia.org/wiki/List_of_personal_naming_conventions and http://en.wikipedia.org/wiki/Family_name for some background about personal names.

Arbitration Case a20090618.12: An example of an accepted country variation.

CategoryAssurance

Signatures

Most Assurers aren't graphologists. Signatures may vary on daytime, may vary by using different writing utensils, may vary in a lifetime, may vary from document to document you'll check, may vary ....

So therefor, we check: the assuree signs in front of us

If there are slight differences between signature made on the CAP form and the ID documents, we don't request: "Please sign as in the ID doc" - this is unprofessional ! Ask for other documents. Bank cards, credit cards are documents, the user gets his money from the bank ....

Dates

Dates - the *magic* 8 numbers ... seems to be complicated to new members also to Assurers. New members, who enters their DoB into the online account and didn't noticed the missing number, as they'll enter their DoB on a recuring basis and their keyboard has a hiccup. There are many more error conditions, that makes the DoB checking a challenge of its own.

Date Formats

In the international world, we come across with several different date formats

- 12/04/2011 - the US variant
- 12-04-2011 - the UK / Commonwelth variant
- 12.04.2011 - the European variant
- "XX<N>" format, where "<N>" represents years passed since the Emperor's coronation. "XX" - Japanese variant
- 2011-04-12 - the proposed format on CAP forms

As yet to be known.

As long the date can be identified clearly (12 can be a month, 4 too for above example), but in 30.03.1980 a switch between day and month is impossible, the format on the CAP form can be used freely.

Number Switches

As Assurance Policy was roled out back in Spring 2009, Arbitration discovered a raising DoB error cases. Often caused by typos:

1. 01 instead of 10 - numbers switched around
2. 1 instead of 15 - missing number
3. 2011 instead of 1980 - current year instead of DoB year
4. 12.04.2011 instead of 30.3.1980 - todays date instead of DoB
5. 11 instead of 12 - number near the other number on keyboard

All these errors applies to errors on CAP forms AND all these errors applies to errors in online data !!!

The 3 Steps in Date Checking

1. Check and identify the Day to Day, Month to Month, Year to Year between ID document and CAP form
2. Check each field value ... especialy on number ordering -> 01 .. 10
3. Add the month in written form behind the written date -> 2011-04-12 Apr

Frequently encountered situations

Junior Members

In principle, children or minors or juniors can also be assured. There is no minimum age set by CAcert.

Policy on Junior Assurers / Members moves to DRAFT and is therefor binding since Jan 31, 2010

There are, however, some difficulties that need to be taken into account.

- The way that persons enter into CAcert's Community is by agreeing to the CCA. This is in effect a legal contract, and in general, entering into legal contracts is for adults, not minors/juniors/children.
- This is one area where you should be aware of your country's laws, if they apply.
- In general, a minor may be able to enter into an agreement with permission of the parent or legal guardian. So you can ask for a co-signing of the form by a parent or legal guardian. However you should stress that the form is signed first by the minor, and then counter-signed by the parent.
- Treat the minor as an adult, with respect, always. One day soon, she will be.
- You will likely have to test points of understanding with both the Member and the parent.
- Acceptable photo IDs are not so useful for young people under 10.

Questions

- *Basically, this may result in some interesting Arbitrations. An Arbitrator may have to take into account that the CCA is not as strong in the case of a minor.*
- *Does it make sense to assure children at infant age? The reason I'd not assure infants (let's say up to age 14) is that they protect their credentials against theft even less well than most grown ups.*

Policy On Junior Assurers Members 2

- Update Feb 1st, 2010: Policy on Junior Assurers / Members PoJAM DRAFT
- *Proposed is a ?ParentsKit, a CAP form related form that describes the consent and the required confirmation for becoming assured for the Junior Member. This ?ParentsKit should also include an informations package for the parents, what is CAcert, what does the CCA mean and so on, to be aware that the parents will understand easily what happens with the assurance. Please also add your phone number or an email address to the package, where the parents gets additional infos, where they can ask additional questions. The assurer has to make an arrangement how the signed ?ParentsForm receives the Assurer and the signed parents form can be returned to the Junior Member, maybe possible by snail-mail, or a second face-to-face meeting. The assurer has to notify the parents confirmation and that he has seen the signature from the parents, probably by a copy or an additional statement onto the CAP form. This procedure is for a single form carried by the Junior Member for showing to the Assurer, rather than a parent's signature over each individual CAP form.*

1. The Junior Member asks an Assurer to assure him.
2. The Assurer checks that the age of the Junior Member is in reliance to the local countries law (eg. Germany its age is under 18 years, for other countries this may vary)
3. The Assurer starts a regular assurance
4. The first Assurer hands out to the Junior Member a ParentsKit that includes a ParentsForm and an info package.
5. The Parents of the Junior Member signs the ParentsForm
6. ParentsForm Retour
   a. The Parents returns the ParentsForm to the Assurer by a second face-to-face meeting, by snail-mail or by a scan of the signed ParentsForm sent by email
   b. The Junior Member returns the ParentForm to the Assurer by a second face-to-face meeting,
by snail-mail or by a scan of the signed ParentsForm sent by email
7. The Assurer makes a note onto the Junior Members CAP form:
   a. writes down the parental name + email
(in case of Arbitration the guardian becomes arbitration participiant instead of the junior)
   b. that he has seen the signed ParentsForm or makes a copy of the ParentsForm and adds it to the Junior Members CAP form
8. The Assurer now can transfer the assurance points he gave to the account with the additional (not yet existing)

   checkbox that he got confirmation from the parents. x[1])
9. The Assurer returns the original ParentForm to the Junior Member for future assurances.
A scanned ParentForm is not sent back by email.

x[1])

- common practice for the addtl. CCA acceptance on Assurances is to add +CCA into the locations field
- this common practice can also be used for the PoJAM acceptance i.e. +PoJAM to signal, that the acceptance from the parents exists and noted onto the CAP form

Parental Consent Form (v1.0)

- English
  - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsForm_EN-v1.odt
  - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsForm_EN-v1.pdf
- German
  - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsForm_DE-v1.odt
  - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsForm_DE-v1.pdf

ParentsKit

- PoJAM Info for the Parents (English)
  - PoJAM Info für Eltern (Deutsch)
- CAcert Community Agreement
  - https://svn.cacert.org/CAcert/Events/Public/CCA-Translations/CAcert_CCA_EN.pdf (English)
  - https://svn.cacert.org/CAcert/Events/Public/CCA-Translations/CAcert_CCA_DE.pdf (Deutsch)
- PoJAM DRAFT Subpolicy
- Assurance Handbook - Junior Members
- Assurance Handbook - CAcert Assurer Reliable Statement
- GettingSupport
- Parental Consent Form
  - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsForm_EN-v1.pdf (English)
  - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsForm_DE-v1.pdf (Deutsch)
- All above for Printing (last updated 2010-10-11)
  - English
    - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsKit_EN-1p.pdf (single paged)
    - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsKit_EN-2p.pdf (double-sided printing)
  - Deutsch
    - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsKit_DE-1p.pdf (einseitiger Ausdruck)
    - https://svn.cacert.org/CAcert/Events/Public/PoJAM/ParentsKit_DE-2p.pdf (zweiseitiger Ausdruck)

Mutual Assurance

Mutual assurance should be done where practical (AP4.2). Note that an assurance is always at the request of the Assuree and the agreement of the Assurer, so mutual assurance remains a voluntary process for both sides.

Mutual assurance has these advantages:

- it prepares non-Assurers for becoming Assurers,
- it exchanges information in a balanced fashion (sometimes known as the principle of reciprocity) and makes us more equal,
- it helps experienced assurers to pass knowledge to junior assurers about new and better practices.

There are some disadvantages:

- it can slow down the process, which will be a nuisance at booths where there are crowds.
- if the other member is not an Assurer, she may not be ready or familiar with the responsibility of keeping the CAP form safe (you may have to do that).

With an Assurer

Conducting a Mutual Assurance with another Assurer is easy, and the process is mostly left open to you and your partner-Assurer. Here are some tips.

The benefit is maximal when we help the other person to see better ways. This means that:

- giving orders on the right way to do things is not helpful
- any thing you spot should be couched in terms of differences, and not instructions
- use phrases like "I do it this way," rather than "you should do it that way."
- explain your logic for any variation. Ask her to explain hers.
- even if you know the answer, allow a journey of discovery. Instead of saying "policy X says Y," try

this instead: "I wonder what policy X says?" And look it up (of course, you will need to have the copy there as well).

- do not use Arbitration as a weapon. Instead of saying "or else you'll face Arbitration," rather say this: "In the end, we might have to ask the Arbitrator to decide which way is best."

With a Non-Assurer

Conducting a Mutual Assurance with a Member who is not yet an Assurer is harder than an ordinary Assurance. But it is more valuable, because it is a really good way to train the Member towards becoming an Assurer!

To do this,

1. Take an extra CAP form, or use a CAP form that is designed to be mutual (includes the same detail for both parties).
2. After doing the process on the Member, ask her to take the forms and repeat the process it on yourself.
3. Coach the Member as she does the steps.
   - Explain why we do it that way.
   - Allow her to make mistakes, and then explain *gently* the nature of the mistake.
   - Ask questions to make sure she understood what she has done.
   - Do not go too deep, do not get into detail. Concentrate on the essentials, and be prepared to compromise on detail. The essence is the overall feeling of the Assurance, not on getting every detail correct. Details and perfection come later with the Assurer Challenge.
   - Make it a fun experience, not a reminder of primary school nightmares. The goal is to make her want to take your job away 🙂 Encourage her (we have many other jobs for experienced Assurers!)
4. Once the checks over the Assurance Statement are done by her over you, she is now ready to allocate Assurance Points to you.
   - She can allocate 0, 1 or 2 Assurance Points to you.
   - Coach her in what the points mean.
   - It is entirely up to her judgment as to how many points.
   - Indeed, encourage her to be critical, and if it is her first time, issue 0 points to you. For example, if she is unfamiliar with the process, how can she be familiar with the meaning of the points?
   - In this process, you yourself are not collecting more Assurance Points, but instead training a future generation of Assurer. Your mission is to teach her the best ways and understandings.
5. Once she has allocated the points, have her write them onto the CAP form(s).
6. Because you are the Assurer, **you are totally responsible for the results.**
   - She is not responsible because she is not an Assurer.
   - You should keep the primary forms.
   - If she is taking copies away, that is OK too. But advise her of the Assurer's 7 year responsibility, and write that on the form. She now holds your privacy data.
7. At the moment, there is no way to enter these points into the system.
   - These points will have to wait for a future system enhancement. So for the moment, the result is lost.
   - But the real benefit of training remains.
   - This above procedure can and will change as we get more experience.

Who keeps the CAP form?

Optional

Mutual Assurances, like all Assurances, are currently optional at the discretion of both. You may not want to do a mutual Assurance, but consider:

- you should share sufficient information with the Member to protect her. For example, your email address and Name would be a minimum. A business card would be a good idea.
- Mutual Assurances are *highly recommended.*

Likely these things will become standard in the future (see 20090517-MiniTOP on Assurance), once

Assurance Team figures out all the details. Let us know your experiences.

CAcert Assurer Reliable Statement - CARS

An Assurance is a CAcert Assurer Reliable Statement, *CARS* for short. It is the primary one you make to the community, as part of our overall Assurance process, or *web-of-trust*.

If you get involved in other, deeper parts of CAcert, you may be asked to make other reliable statements to help our processes. Here are some examples:

- reports prepared by system administrators on changes to the software are relied upon by the Board, and can be verified and scrutinised by audit.
- co-auditing involves senior assurers checking the assurance process, and making reports back to the Assurance Officer and Auditor.
- Event Coordinators are required to make sure that all Assurers at an event follow Assurance Policy, and report this back to board.

In order to signal a statement of reliance, you can add the term **CARS** to the end of your name. This is useful if it is not totally obvious that your statement might be relied upon.

Sample of CAcert Assurer Reliable Statement

> I make a statement
>
> My Givenname Lastname
> CARS

Verification and Measurement in the Web Of Trust

To construct its global web of trust, CAcert uses a metrics system called Assurance Points to measure how well we know you.

Assurance Points

The number of Assurance Points measure how much you have been verified in Assurance processes and other approved processes, as per Assurance Policy (POLICY). They go from 0 (new Member) to 100 (fully assured Member).

- 0-49 points: "Unassured"
  - This Member is not assured and her name cannot be included in certificates.
  - her certificates will expire after a maximum 6 months.
  - With more than 0 points, the personal details cannot be changed anymore by the Member.
- 50-99 points: "Assured"
  - Each Assured Name can be added to a certificate.
  - Server certificates are valid for 2 years.
  - You can get a signed PGP/GPG key.
- 100 points: "Prospective Assurer"
  - the maximum number of points one can get from other Assurers.
  - Code signing authorisation may be requested.
  - You may become an Assurer by passing the AssurerChallenge

Currently points acquired do not "expire" or "decay", but this might be changed in the future.

Experience Points

Old Points	**Your Experience Points**	**Issuable Assurance Points**
100	0	10
110	10	15

120	20	20
130	30	25
140	40	30
150	50	35

For every assurance, an Assurer generally gets 2 points, up to the maximum of 50 points.

Note that this system is currently unimplemented, and the experience is collected as points in the Assurance Points scheme, being points above 100. See below.

Old Points

```
Note: The meaning of the points has changed since the new [[http://www.cacert.org
/policy/AssurancePolicy.php|Assurance Policy (POLICY)]].  The change split the old
points into Assurance Points and Experience Points.

Before, they were the same points system with different meanings, below and above
100 points. Below 100 the number of old points showed the amount of trust CAcert
had in your identity. The points above 100 made a statement about your experience
as an Assurer.

Now, there are two points systems, one for each meaning.  Assurance Points ONLY
show how well you have been assured.  Experience Points indicate how well an
Assurer can do their job.

The separation of Experience Points has not as yet been implemented in the online
system.
```

What is an Experienced Assurer?

For each assurance done, an Assurer is given 2 Experience Points ("EPs"). There are also some exceptions such as 5 EPs for attending an ATE (currently its technical impossible).

When an Assurer has gained the full 50 EPs, probably by conducting 25 assurances, the Assurer is often termed an Experienced Assurer.

What is a Senior Assurer?

This is an Assurer:

1. Experienced, as described above,
2. has been co-audited,
3. has attended an ATE,
4. knows CARS.

This definition was reached at the Brussels MiniTOP on Assurance.

What is a co-auditor?

A *co-auditor* is a very experienced Assurer who helps the Assurance Officer collect results suitable for verifying the entire system of Assurance. These results are collated for audit over CAcert.

What is a co-audited Assurance?

A *co-audit* or a *co-audited assurance* is an assurance that you the Assurer conduct over the co-auditor, see above. This is done as a Quality Assurance activity so the Assurance Officer has some means to judge the quality of the Assurer Network, as it is requires by the Audit Criteria.

During the assurance, the co-auditor checks lots of things and records the results. There is no fail for this. At the end, you should get some helpful feedback.

Co-audits are most often conducted during ATEs, so you should try and attend.

Co-Audited Assurances Results

For each *co-audited assurance* data is collected and stored in a database as directed by Assurance Officer. Each record includes the email address of an Assurer as a unique identifier, a collection of pass / fail / not tested results of a seasonal test set, and some context data (location, number of experience points, attendance at ATEs).

The co-audit project is initiated by DRC-A.2.y, it is instantiated into policy within TTP-Assist 5. (*In coordination with internal and external auditors, the Assurance Officer shall design and implement a suitable programme to meet the needs of audit.*), and is further controlled under AP 6.2 High Risk Applications.

Questions Answered

Ruling on multiple accounts

- *Respondent has multiple accounts.*
- A CAcert community member has a CAcert login account (see the Assurance Policy)
- Such an account is the link between the Member (person) and the CAcert system, and information regarding the member (like name, DoB, assurance status) is linked to that account. Although there is no rule that forbids having two or more accounts, it is not recommended, since it can cause problems.
  - **Ruling:** It is not forbidden to have multiple accounts

  (Source: a20090510.3, a20110418.1)

Ruling on multiple accounts with assurer status

- *1 of Respondents accounts have assurer status*
- There is no rule that forbids a CAcert Member to have two accounts with assurer status. However, a *Member* with assurer status assures, and uses a CAcert *account* to register the assurance. Since an Assurer can only assure another member (a person) only once, it is forbidden for an assurer to assure a single person and register that assurance with more than one account. An assurer can only give the number of points linked to the account that is used to assure someone. Therefore, since having multiple assurer accounts is not required, it is strongly advised not to allow them.
  - **Ruling:** It is not forbidden to have multiple assurer accounts
  - **Ruling:** To avoid issues like this one, CAcert shall review if having multiple assurer accounts is acceptable

  (Source: a20090510.3, a20110418.1)

Ruling on assuring your own accounts

- *Respondent assured 1 of his other accounts*
  - **Ruling:** An assurer cannot meet himself/herself face-2-face. Therefore all assurances by Respondent of accounts of the Respondent are invalid and must be revoked incl. revocation of experience points.

  (Source: a20090510.3, a20110418.1)

Id Document Photocopy is Forbidden by Default

- Board motion EmailBoardDecisionsUpdateFeb2008#m20080422.3 says:

- m20080422.3 Removal of copies of ID and identification number information from archives
- Comments: CAcert when it started in 2002 required that copies of ID's were archived for 7-10 years in the archives of CAcert or archives of CAcert Assurers. In a later instance CAcert required to take note of ID numbers and/or social security numbers of the individual. For privacy reasons both (copy of ID, personal numbers) were dropped. The CAcert Assurance Programme form states that the information should be kept 7-10 years. CAcert Inc. drops the requirements for copies of ID and personal numbers and decides to remove these information from the CAcert archives and requires

the CAcert Assurers who are in position of that information to do the same. The information should be deleted with care.

- Copies of ID are not needed for operational purposes and are not compliant with European privacy Directive (EU DPA).
  - Decision: Accepted
  - Actions: delete paper and digital copies from archive; denote the action and decision in CAcert blog; ask CAcert Assurers to follow CAcert decision. Blog on DoB and Copy IS drop done as well board order to destroy them by operators/adminsitratores has been given in May 2008.
- Further clarification:
  - Assurance Policy lists under 6.2 High Risk Applications:

    > Additional measures may include:
    >
    > > Additional information can be required in process of assurance:
    > >
    > > > photocopy of identity documents

  - Section 6.2 falls under the 6. Subsidiary Policies section.
  - This doesn't mean, that its allowed to make a photocopy of identity documents, but maybe Subsidiary Policies can define such actions.
  - Also an Arbitrator may request a photocopy of an identity document. But this are all individual events and by request.
  - As section 6.2 High Risk Applications says, to take a photocopy is a High Risk Application. So therefor CAcert has decided by a board motion back in 2008 that this action is not in compliance with the EU DPA and therefor dropped it entirely.

- AssuranceHandbook2/SomeMoreInformation

To CAcert.org Education & Training - To CAcert.org Education & Training Overview

To Assurance Policy - To Assurance Handbook

Some more information on CAcert

You are CAcert's "face to the customer". So you should be able to give at least some basic information about CAcert itself.

What is CAcert

CAcert is a non profit association incorporated in Australia. It is supported by a growing community of assurers (like you) who are part of a "Web-of-Trust" for identity verifications.

What is the goal of CAcert?

CAcert is a community of like-minded people working to improve our security, generally circulating around PKI technology based on x.509 "certificates" and PGP's web-of-trust.

CAcert does not have a formal or agreed mission or goal. Some of these might apply, and have been discussed from time to time:

- make security affordable and available for everyone.
- secure the Internet and increase trustworthiness.
- provide privacy through encryption.
- provide security through authentication.

For more information see the Principles of the Community.

What is the difference to other CAs?

- CAcert separates assurance (confirmation of identity) from the issuing of the certificates. Thereby the identity only has to be confirmed once to make as many certificates as needed and whenever wanted.
- CAcert is a "non-profit" community of volunteers. It is independent from commercial CA's.
- Some CAs issue free certs, and some use a WoT, but they tend to only issue low-level client certificates, but no server certificates or strongly verified certs. These free certs are intended to drive

you to their CA so they can sell you higher value products. There is nothing wrong with that (your supermarket does the same thing) but it might not be appropriate to your needs.

Arbitration

Arbitration is CAcert's main channel for dealing with anything unexpected or unusual that might go wrong. This includes complaints about inappropriate conduct of an Assurance, invalid or inappropriate data in any member account, or inappropriate usage of certificates, but also unclear policies or practices. Indeed, just about anything may be disputed, and the policy documents often defer difficult issues by simply saying *file a dispute*. In this way, the policy documents and Arbitration work hand-in-hand: Policy handles the expected and the easy; Arbitration handles the unexpected and the hard, and both of them together provide the foundation for all work done in CAcert.

As a part of accepting the CAcert Community Agreement (CCA), every member accepts Arbitration according to CAcert's Dispute Resolution Policy (DRP). Anyone who has a complaint about anything relating to CAcert may file a Dispute by sending a mail to mailto:support@cacert.org. You will be notified of any dispute via your primary email address, so you are required in CCA to keep this working.

How does Arbitration work?

Once a dispute is filed and notified, an Arbitrator is chosen by CAcert from amongst our own senior and experienced Assurers. Arbitrators are strongly familiar with the policies, rules, principles, customs and specialties of CAcert. As an Assurer, you should be somewhat familiar with the rules, and at the least, know where to find them so as to answer basic questions from members.

The process of an Arbitration is this, in brief:

1. the Arbitrator looks at the situation by means of *evidence*,
2. applies the policies and rules, and if necessary the law (of NSW, Australia), and
3. delivers a ruling.

The ruling is binding on you, all members, and CAcert itself. It is generally published so that all the Community can watch and govern the system, and we can improve our policies and practices over time.

As we use Arbitration for all sorts of unusual and difficult questions, being named in an Arbitration is no bad thing, in and of itself; indeed, it is a mark of experience to participate. One day, you may be asked to sit as an Arbitrator, and this will likely require you to have been named in Arbitrations already. You can find more details and many references at our ArbitrationForum.

Background to Alternative Dispute Resolution

CAcert has introduced Arbitration as a protection for its members.

Normally, if something goes terribly wrong, you might be dragged into a civil court to face a lawsuit. Especially, as CAcert provides certificates making statements about people across the world, it is highly likely that any lawsuit would be filed in a country far away. In your country, the system of justice may have a reputation for looking after you, but this is not true of all places. At a minimum, remote systems of justice will be difficult and expensive for you to understand and navigate, even if they are fair. As well, there will be expensive lawyers, and you may be hit with a harsh judgment that does not fully appreciate what certificates are about and what we as a Community are about. Even if the court rules in your favour, it could be a Phyrric victory, one that you could not afford.

Therefore, instead of using the courts, we agree to deal with all our disputes internally. The authority for this is found under the Arbitration Act in each country, and in the clause in the CCA:

```
3.2  Arbitration as Forum of Dispute Resolution

You agree, with CAcert and all of the Community, that all disputes arising out of
or in connection to our use of CAcert services shall be referred to and finally
resolved by Arbitration under the rules within the Dispute Resolution Policy of
CAcert (DRP => COD7). The rules select a single Arbitrator chosen by CAcert from
among senior Members in the Community. The ruling of the Arbitrator is binding and
final on Members and CAcert alike.
```

You should be familiar with that clause and how to explain it to new and prospective Members.

Most countries have Arbitration Acts in place as law (see for example the German Arbitration Act) that permits and even encourages internal Arbitration such as ours. This makes sense where a local or specialised community might have a better understanding of their own conventions and rules, where international affairs make it impractical to choose a neutral or cost-effective court, and where the real natures of the disputes do not justify the expense of the courts (and especially the lawyers).

These aspects are a natural fit for CAcert because we are in a complex international environment of Assurances, the Internet and certificates. The Arbitration Act provides us with a way to deal with any disputes internally, rather than going to courts, which likely are in far away countries, involve expensive lawyers, and have little knowledge of the process of certificates. Hence, we achieve a balanced and cost-effective legal approach across the entire Community, which applies to you as well as every other member, and to CAcert itself.

In the event of any lawsuit filed against you in relation to your CAcert activities, you should ask the court to refer the case back to Arbitration, citing the above clause and Act. There is no guarantee that a case will be so referred, and criminal cases are not referred, but as a matter of public policy courts will routinely refer cases back to Arbitration where this was the agreement.

The intent is to protect you and all members. This means that, in order to protect other members, an Arbitration case may result in some penalty imposed upon you if the Arbitrator finds that you were acting against CAcert's policies, rules and/or principles! See DRP section on remedies for more details.

How is privacy protected?

- Forms stay with the assurer and are only forwarded to CAcert under special circumstances.
- From the outside it is not evident who assured whom, the online system keeps that information private.
- CAcert will not give any data to third persons or third parties, except when ordered by an Arbitrator during dispute resolution.

For more details look at the privacy policy and also the last section of the Assurance Policy 7. Privacy.

Is CAcert included in browsers by default?

- Please see: InclusionStatus

How many people use CAcert?

- for current data, go to the website, click on About CAcert.org at the right, then on CAcert Statistics. Do this manually, the link isn't published because the statistics collection is live and this slows the server down a lot.

Some technical aspects

While assuring people they may ask you some technical questions. Just to help you to pose as a real crack, here are some basics. 🙂

What are public and private keys?

"Public key cryptography" works with **pairs** of public and private keys. Each key in the pair can be used to encrypt data that can be decrypted *only* by someone with the other key. *By convention, one of the pair is designated the "public key", and the other is designated the "private key".*

The private key is kept secret and protected. It is never shared.

The public key is made available as broadly as possible since this is the one that can be used to encrypt data that only the owner of the private key can decrypt. It also allows decryption of data which has been encrypted by the private key.

So if you want to send someone an encrypted message you need your partner's public key. If you loose your private key you cannot decrypt messages sent to you any more.

By encrypting a document's hash value with your private key you can create a digital signature, which everyone can verify using your public key.

The public part of the key can be created from the private key *(really?)*, but the public part does not allow anyone to guess the corresponding private key. Or better, it is really very very hard to guess the private key from the public part if the private key is "big enough".

What is a digital signature?

A digital signature is a kind of "seal" attached to a document that guarantees that the signed document has not been changed since the creation of the signature and it guarantees that it was created by someone who has access to the corresponding private key.

Technically speaking it is a hash value of the document encrypted by the private key of the signer. There are many different ways to implement this.

What is a certificate

A certificate in this context is a "document" containing a public key, some information about the owner of this key, and a signature from a Certification Authority ("CA").

Certificates following the X509 standard (including those issued by CAcert) contain issuing and expiry dates, hashes (or "data fingerprints") used to validate the certificate, and a unique serial number. In addition, certificates generally include some information about the user, such as the name or email address.

What can I do with a certificate?

Typically, the certificate represents a claim made by the CA over the "subject" of the certificate, e.g., an individual or organisation. A CA defines the exact meaning of a certificate in its documentation. For example, who can get one, what checks are made, and what you can do with this information. In order to know what to do with a certificate, you should examine the documentation carefully:

- the "Certificate Practice Statement" (CPS) generally states the meaning of the certificate and what checks are made to support this meaning. In theory, you should examine a CA's CPS very closely before deciding what to do with any given CA's certificates. For CAcert, look for the relying party statement and then look at the Assurance Policy to see what the source of that information is.
- the "Relying Party Agreement" (RPA) is where the legal info is, and in particular whether you have the right to do so. For CAcert, this is the CAcert Community Agreement.

errrr ... the certificate certifies something, the "subject" of the certificate. Ordinarily this is the e-mail address of the owner, and name if s/he has enough assurance points, or the web address/domain of a web server. The last sentence of the previous paragraph makes it seem that both e-mail address and name are optional for a client certificate, when in fact at least one should be there, otherwise what is the certificate certifying?

[iang] ... the assumption that the certificate "certifies" something has to be treated with care. What does that mean, and who can rely on that? I've tried to unravel this from the contents of the certificate, above. The other question of whether there is a use for a "null certificate" or one without name or email address ... then becomes easier to deal with. For CAcert's case it is somewhat irrelevant, and this would make a good CATS question 🙂

What can I do with certificates issued by CAcert

Secure web servers

You can generate certificates for https servers. Though at the moment CAcert's root is not included in standard Mozilla and Internet Explorer, it is already included in several Unix-like distributions.

And it's easy to install CAcert's root certificates manually.

X509 Client certificates

These can be used to encrypt and/or digitally sign emails. See ClientCerts for our growing list of places you can yse your client cert. They may also used as a way of authenticating with web servers, like the certificate login on CAcerts website or VPN servers.

Code signing and IDN certificates

If you are an Assurer, you can get certificates signed/issued by CAcert for code signing and IDNs (International Domain Names).

Due to the increased possibilities for abuse those certificates have additional requirements. The CPS states that this requires Assurer level, which you meet if you are reading this Handbook. However note that as of 20091106, there is a move to reduce these requirements. Watch this space.

OpenPGP signatures

Get your PGP keys signed by CAcert's key. This should considerably increase the trust in your PGP key since many people trust CAcert's signature.

Does CAcert use OCSP?

CAcert offers online certification verification via the Online Certificate Status Protocol. Whether your applications actually use it, is another question.

Where can I get more help with technical problems

Best places for technical help are the wiki and IRC, see the #Appendix below.

Appendix

Help & Support

In order to advise users on their options, you should know about these:

- mailing list cacert-support /at/ lists.cacert.org
- support (at) cacert.org .
- documentation located at the CAcert wiki: http://wiki.cacert.org/
- Chat/IRC forum at: irc.cacert.org
    - #cacert english channel
    - #cacert.ger german language channel
    - SSL version (prefered) https://irc.cacert.org/ non-SSL version http://irc.cacert.org/
    - http://cacert.noxlux.de
    - If you do not know how to use an ircclient you may also try the CAcert Web IRC or Webchaton

  Support is maintained by the Support Team, as directed under Security Policy Section 8. The Channels of support are listed in the Security Manual.

  As an Assurer, you should consider joining the support mailing list and helping out. Or, hang around the IRC chat room.

CategoryAudit

CategoryPolicy

CategoryAssurance

Inputs & Thoughts

YYYYMMDD-?YourName

```
Text / Your Statements, thoughts and e-mail snippets, Please
```

CategoryAudit
CategoryPolicy
CategoryAssurance