Policy proposal: Provision of email addresses and mailbox facilities by the University (ISC 349)

Introduction

Whenever someone needs access to University IT resources, they usually need to have an identifier or username so the IT system can recognise them. Most University systems expect users to have a Common Registration System Identifier (CRSid). This is a permanent and unique identifier for anyone with a suitable relationship with the University who has ever required resources to be allocated to them. Once issued to an individual, a CRSid is never reused for anyone else. Typically, no one should have more than one CRSid. Having a CRSid does not itself constitute access to any IT resource. It is an enabler.

Raven is the University's system for authenticating people with CRSids. Raven asks a user to provide their CRSid and a password. Raven checks these against its database of CRSids. A user who provides the correct credentials is thereby authenticated. Many University systems rely on Raven to authenticate users. It is these systems, not Raven, that determine what access to provide to a user once they have been authenticated. Some systems provide full access to any user after Raven has authenticated them. Other systems give individual users different levels of access. And some systems check the CRSid of an authenticated user with other systems that can tell them if that user is a student, a member of staff, or has some other status, and then uses that additional information to determine what access it provides.

Almost everyone who has been given a CRSid will also have been allocated an email address of the form <CRSid>@cam.ac.uk. They may also have been allocated additional email addresses, usually of the form <name>@<institution>.cam.ac.uk or <name>@<college>.cam.ac.uk, and access to mailbox facilities that allow receipt, storage and sending of emails using those addresses.

This paper proposes an approach for deciding on the allocation of email addresses, and associated mailbox facilities, by the University. It does not discuss or propose any changes to the approach for allocating or managing CRSids or Raven accounts, or how other systems use CRSids and Raven authentication for their own purposes.

Background

The University was one of the earliest institutions in the UK to implement email services, long before email addresses or the internet was available to much of the population. Email addresses initially were available only to a minority within the University, and gradually this has expanded to cover almost everyone who has any academic or working relationship with the University. At the same time, the number of people who have some form of association with the University has increased. But it is not always entirely clear when someone should be allocated a University email address, rather than expected to have one provided from elsewhere. Neither is it always clear when someone should cease to have a University email address.

A transparent policy on who should be eligible for a University-provided email address is lacking. A useful policy on eligibility is likely to be nuanced, to reflect the great diversity of the University's activities, the very many kinds of associations that an individual can have with the University, and how those associations change over time. Some of the factors to be considered are listed below.

Benefits to users

A University-provided email address and a mailbox service are benefits, and often necessities, for the person they are allocated to. Email is both a pervasive communication tool and a means of demonstrating an association with the University.

Risks to users

When the University allocates a user with an email address and mailbox service, the terms of that allocation are not clearly defined. Users are faced with lack of clarity on when the University's staff, in operating the mailbox service, may see the contents of mailboxes, or facilitate access for other people. It is also not clear to users which uses of the mailbox service the University considers permissible, and it is not clear who would be liable for losses incurred when a user relies on the University's mailbox service for personal purposes.

Cost of resources

Operating and supporting a mailbox service consumes resources, whether staff time, or fees paid externally for components of the service, or both. At the same time, email can facilitate communications at very low cost compared with other mechanisms such as the postal service and phone calls.

Risks to the University

The University and the internet domain cam.ac.uk are clearly and closely associated. Similarly, the domain is not regarded as one that offers email services to members of the public (in contrast with @gmail.com, @hotmail.com or @virginmedia.com, for example). It is a reasonable assumption that someone who uses an @cam.ac.uk address is closely associated with the University. The University faces risks if, given that reasonable assumption, there are in fact correspondents who can use @cam.ac.uk email addresses but have no association with the University. Risks include:

- Breach of confidentiality, arising from external correspondents sending information that should only be shared with the University to an @cam.ac.uk address used by someone no longer associated with the University.
- The University is considered to have received a notification, because it has been successfully sent to an @cam.ac.uk address, but user of that email address has no duty or reason to act on it.
- Someone with an @cam.ac.uk may be more easily able to misrepresent themselves as an employee or student of the University.

Privacy and transparency

The University operates in a complex legal and regulatory environment. It is bound by the Freedom of Information Act and the Investigatory Powers Act, among others. Users who make use of a University-provided email address and mailbox service may find their electronic correspondence falls within the scope of disclosure under these Acts simply because the University is within their scope, even if the content of their correspondence is unrelated to the University.

Current situation

People who currently have a University email address may expect, for various reasons, to continue to have that address. Any policy on eligibility should also consider the impact on those people of a change of address from @cam.ac.uk to an alternative such as @cantab.ac.uk, or the withdrawal of a University email address.

Proposed policy on eligibility for an @cam.ac.uk email address

Heads of Departments and Heads of Colleges will be able to nominate people in their institutions to be eligible for a mailbox, calendar, address book and an email address of the form <crsid>@cam.ac.uk. UIS will provide ongoing and general guidance on the benefits, costs, and risks of provisioning @cam.ac.uk addresses to support heads of institutions making informed decisions on nominations.

For transparency and for ease of administration, the UIS will assume that the sets of people listed below would be eligible. UIS will not seek confirmation of this from a Head of Department or a Head of any College. In most cases, UIS will be able to refer to existing registers and records to identify the relevant individuals, including:

1. Special editions of the Reporter: the Roll of the Regent House; the Members of the Faculties; the Fellows of the Colleges; and the Emeritus Professors, Readers and Officers;
2. Reporter notices on Grants of Title;
3. Student registrations on CamSIS;
4. Staff records on CHRIS.

In other cases, UIS will work with relevant institutions to identify eligible individuals from the institutions' records.

Categories automatically considered eligible for @cam.ac.uk mailboxes

- Students
    - Registered students
    - Members *in statu pupillari*
    - Students at Cambridge Theological Colleges (including those registered at Durham or ARU)
    - Students registered for an award-bearing course with ICE
    - Executive education attendees with the Judge Business School
    - Visiting scholars sponsored by an institution

- Members of Regent House

- Academics
    - Members of the Faculties
    - Affiliated Lecturers
    - Non-staff academics sponsored by an institution
    - Honorary Professors and Readers
    - Emeritus Professors and Readers

- Fellows of the Colleges
- Fellows and equivalents of the Theological Colleges
- College assistants sponsored by their College
- College teaching officers sponsored by their College

- Employees of the University
    - including postdoctoral researchers funded by a grant administered within the university
    - including employees of Cambridge Enterprise

- o excluding staff at the nursery
- TES staff once assigned
- People seconded by an external organisation to work for the University
- Workers including volunteers sponsored by an institution

Proposed policy on eligibility for an @cantab.ac.uk email address

Anyone in the categories below will be eligible for a mailbox, calendar, address book and an email address of the form <crsid>@cantab.ac.uk. Individuals eligible for an @cantab.ac.uk address may also be eligible for an @cam.ac.uk address, in which case they could be allocated two addresses and mailboxes if they choose.

- Anyone who holds a degree conferred by the University
- Retired persons who were employed at the University immediately prior to retiring

The University will publicise the distinctions in eligibility for @cam.ac.uk and @cantab.ac.uk addresses to mitigate risks to the University. This will make clear to people outside the University that current students, academics, officers, fellows and employees of the Collegiate University will usually have an @cam.ac.uk address, and that these addresses are expected to be used for University business. The @cantab.ac.uk addresses would be allocated to alumni and other people without a current close association with the University; these addresses would not be intended for University business.

Transition procedure on ceasing to be eligible for an @cam.ac.uk address

There are well-established procedures in place for the following situations, which would not change if this policy were adopted, and will not be discussed further here:

1. Registered students at the end of their course of studies;
2. Non-academic employees resigning or being dismissed from employment, or reaching the end of a fixed-term appointment (but not retiring).

If a user ceases to be eligible for an @cam.ac.uk mailbox, other than in the two situations above, the following transition procedure is envisaged:

1. For the first three months after ceasing to be eligible, the user can continue to make full use of the allocated @cam.ac.uk address and mailbox facility. If eligible for one, they will also have access to an @cantab.ac.uk address. During this period users can use both email addresses, which will enable them to register a change of address with online services, and if need be make use of email-based password reset procedures.
2. Three months after ceasing to be eligible, the user will cease to have access to their allocated @cam.ac.uk mailbox and any shared mailboxes. They will not be able to send emails from these mailboxes. On receipt of an email addressed to their @cam.ac.uk address, the University's mail system will automatically respond to the sender to indicate that the sent email has not been delivered, but the user can now be reached at a new address (specified by the user). If a user is eligible for an @cantab.ac.uk address, they can specify their @cantab.ac.uk address as the new address.

3. Six months after ceasing to be eligible, the University's mail system will refuse to accept emails addressed to the @cam.ac.uk address.

A note on forwarding of emails

The University's email systems all permit a user to configure automatic forwarding of any email received to any other address. They also permit a user to configure automatic responses. This will continue to be available for any @cam.ac.uk mailbox, and in the transition procedure above, would be available for as long as the user has access to the mailbox.

Therefore, users going through this transition procedure would have 3 months during which they could forward emails to another mailbox, and automatically respond to emails with their new address. Guidance on how to implement this would be issued.

Impact assessment of the policy

Benefit to the user
Users eligible for either an @cam.ac.uk or an @cantab.ac.uk address will be provided with a mailbox, and the associated ability to manage a calendar, enable other users to see their calendar, see other users' calendars if they have been shared, access a directory of other users with mailboxes, and access shared mailboxes (NB – this set of associated benefits assumes that the mailbox will be provisioned on Exchange Online, whose mailboxes include the additional benefits). They will also be able to send emails from either <crsid>@cam.ac.uk or <crsid>@cantab.ac.uk depending on their eligibility for these addresses, providing technical assurance to other mail systems of the authenticity of those emails.[1] Both @cam.ac.uk and @cantab.ac.uk addresses indicate that their users are associated with a higher education institution in the UK, and both domains are associated exclusively with the University of Cambridge.

Risks to the user
All mailboxes will be operated by the University, and users will need clear guidance that they should not rely on these mailbox services if they use them for non-University purposes. This will be particularly relevant to users with an @cantab.ac.uk address, who are likely to use them principally for non-University purposes.

Cost of resources
Education discounts are available for most categories of user listed. Mailbox services for users eligible for @cantab.ac.uk do not attract additional subscription costs per mailbox, though of course there are marginal increases in staff time and resources to operate additional mailboxes and support users.

Risks to the University
The @cam.ac.uk domain is closely associated with the University; @cantab.ac.uk has a looser association but is still clearly related to the University. Allocating an @cantab.ac.uk address reflects a different level of association from that signified by @cam.ac.uk, while acknowledging a prior

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[1] It should be noted that, at the time of writing, the University's email systems permit emails to be sent from @cam.ac.uk addresses with no or severely limited assurance. This is not a desirable situation, and will over time be resolved so that emails from @cam.ac.uk addresses can only be sent by authorised and authenticated users.

association. The @cam.ac.uk addresses will consist of people with a close and continuing association with the University, which reduces the risks of information being shared with or delivered to people who are not bound by the University's policies. It also reduces the risk of misrepresentation.

UIS would focus resource and efforts on improving the security and assurance of the @cam.ac.uk mailboxes, since attacks on email accounts are most likely to be aimed at the University. UIS will, for example, implement two-factor authentication for mailbox access on @cam.ac.uk mailboxes, anti-spoofing mechanisms, and automated transparent encryption of emails.

Privacy and transparency
All mailboxes will be operated by the University, and all will therefore be subject to any obligations on the University to examine or disclose information it holds.

Current situation
Some users currently have and actively use an @cam.ac.uk address who, under this policy, would not be eligible for @cam.ac.uk, but would be eligible for @cantab.ac.uk. The number of such users is unlikely to exceed 500. These email addresses will be transitioned as described above. The users will face the inconvenience of informing their correspondents that their email address will change, and potentially of updating external systems (such as online retailers) with a new email address.

Implementation considerations

The policy on eligibility set out above is largely independent of which technology platform the University uses for email services. The capabilities delivered alongside the email address are dependent on the technology platform that is used for email services, and the capabilities listed are available in Exchange Online.

The transition procedure can be implemented purely on Exchange Online, which is the platform expected to be used increasingly across the University. We anticipate that it can be automated to a very large extent, and therefore will not incur any material costs to operate.

It has also become clear that the guidance and advice issued by UIS on email services is in need of a review and refresh, if only to keep in line up with clarity and usefulness of what UIS has published to support the users of Teams. This policy proposal would trigger some of the updates needed.