Cloud architectures can allow people to easily and conveniently take advantage of larger amounts of storage and computing power through any compatible device. They provide a back-up to locally stored data could make sharing data a little easier with others. There are reliability, interoperability, privacy, and security concerns, as people place their precious data under the control of third parties however that is not what I wish to dwell on here.

No, it turns out that a recent study by the Pew Research Center’s Internet & American Life Project and Elon University’s Imagining the Internet Center states that we will ‘live mostly in the cloud’ in 2020 and not on the desktop, working mostly through cyberspace-based applications accessed through networked devices. The majority of technology experts which took part in the fourth Future of the Internet survey expect most people will access software applications online and share and access information through the use of remote server networks, rather than depending primarily on tools and information housed on their individual, personal computers.

I cannot dispute these findings for the most part. In fact many of us live in a hybrid world at present with a large range of our daily activities based both on the desktop (or mobile) and online. Of course, not all online activity is in the ‘cloud’ but I hope you know what I mean. For instance, many of us use Internet mail with providers such as Yahoo, Gmail or Hotmail. I honestly expect the trend to continue. I really do not see myself installing a version of Microsoft office on each new device I get in the future when I expect to be updating even more frequently. When you probe Apple users, what you generally find is that they love the way it ‘simply works straight out of the box’. Yes, wouldn’t that be nice with all future computing devices. Well, the cloud may be that answer. One username and password is all you need to type in once the device boots up - and everything is then at your fingertips.
I believe that perhaps the issue of ‘trust in the cloud’ may be addressed by automated encryption techniques to some degree. I mean, why not? This would solve the problem of ‘future snooping’ on our most intimate data. Perhaps the most important number we store in future is the encryption key to our cloud data or maybe that will be ‘offloaded’ to some biometric authentication process. I expect larger organisations will put their work into the cloud quicker than small businesses. It should ease IT administration issues.

The lack of proper broadband in regions however will slow down the universal move to the cloud in addition to complex legal issues and cross-border intellectual property conflicts. Broadband or fast cellular connections are important as one should not ideally discern the difference between accessing data and applications on a desktop and in the cloud.

So on to this particular issue and I am very pleased to present to you a special issue of IJACI on Ad hoc Ambient Computing compiled by guest editors Nikolaos Georgantas and Valérie Issarny. The papers are follow up pieces from the excellent International Workshop on Ad hoc Ambient Computing (AdhocAmC) held in France. I hope you enjoy them.

Kevin Curran
Editor-in-Chief
IJACI