

***This paper is written by UNICOL
the UK's leading mount manufacturer***

Systems Integration Explored

With help from Robin Newbury of Tecknowledge we take a down to earth look at System Integration and whether it delivers the right product for the customer.



What is systems integration?

Unfortunately, this is a question that most alleged systems integrators struggle to answer adequately. This being the case, where do end users stand in finding answers to that exact question? Especially as they are normally reliant on information from suppliers to assist them in making purchasing decisions. After all, we have all bought a technology product to do one thing - only to find that it actually does something completely different.

We have now well and truly entered the digital age and the array of manufacturers and products has expanded beyond belief. This in itself should be exciting but is actually a huge problem! Manufacturers have so much technology and product available, it is possible to deliver nearly any technology solution, isn't it? Of course it is, or is it....

Unfortunately not, there is a massive gap in the necessary integration skill sets to deliver cutting edge and innovative solutions.

Systems integration should be the transparent process of connecting everything IT and AV together to provide the user with a simple usable solution. Unfortunately, this is not normally the case.

Historically, the AV and IT industries have run in parallel but IT products have been exactly that and Audio Visual the same. Two industries standing on their own, with professionals in each sector, each delivering their own solutions working with manufacturers that make products for each market. Simple... NO!!



Add to that software and firmware (upgrades and downloads) as it is mostly the software that allows for seamless integration. Great.... another skill set required for integration. Also, it is now possible to use Category 5e data cabling for computers and audio visual products. Confused.... Well so is most of the industry.

So, why is it that IT companies struggle to deliver Audio Visual products and



solutions and Audio Visual companies struggle to deliver IT systems. The simple answer is that historically, AV and IT have been completely different markets and the end users have been happy to work with suppliers from each sector.

Indeed in most large organisations there is normally an IT department and an AV department. Why is this, surely its not too hard to merge both.... is it? You would think not but most AV techies like to play with Audio Visual technologies and most IT techies like to play with IT products. Add the software engineers and it's enough to go into confusion overload.

The more time spent with each type of techie trying to work out what they are talking about, the more frustrated you will become by the lack of understanding each has for each others markets. The same can be said about the manufacturers from each market as well.

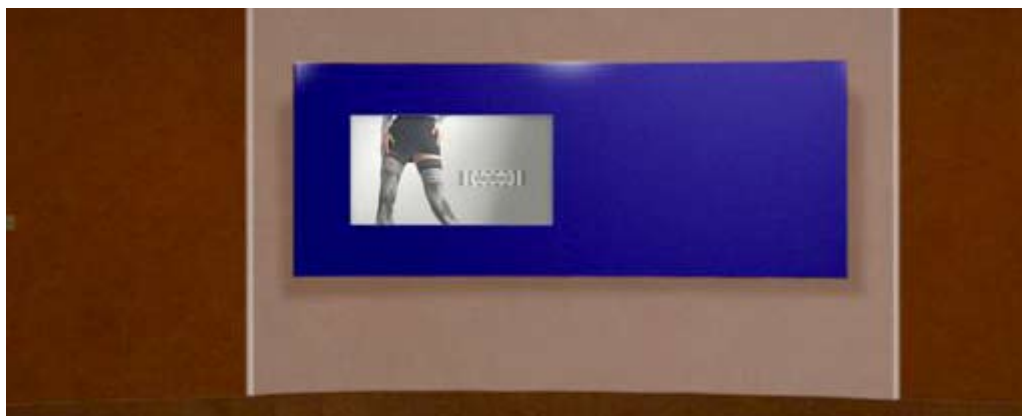
A fine example of systems evolution is Video conferencing. AV companies mastered in this technology early on, but as the technology evolved, VC manufactures started using IP (broadband) for intercommunication, VC suppliers and providers did not understand IP or Networking so IT companies moved in and started installing and configuring VC technologies. However, when it came to plugging in the screen, the clever IT people could not work out what port to plug the video connectivity cable into. (For the IT guys out there, it's the yellow one!). The same can be said about the RJ45 cable (for the AV guys out there, that's the one slightly bigger than a telephone plug with eight pins!)

The main differences between the IT and AV industries are training standards and recognised qualifications or courses. For IT there are many recognised standards and specialised courses. The same cannot be said for AV. Why is this? Perhaps we should look to the manufacturers for answers. However, each manufacturer works to their own specifications and designs, thus complicating the integration process further. (if it takes three days to walk round the ISE show in a hurry.... how long will it take to understand and master each product there?)

So what should an end user be looking for from an integrator? Ability, honesty, experience, knowledge, manufacturer relationships and so on....

Not exactly, sometimes it's best to have an exact design specification laid down and to get integrators to work to the design specification. However, whilst the integrators battle with change and the IT companies struggle to plug in an AV link cable, the problem will continue.

Also, distributors have a responsibility to work with the new wave of integrators to train and provide the necessary skill sets to both IT and AV solution providers. That's fine if the right margin is made thus allowing for investment in personnel for training. End Users need to understand that it is important for the reseller to make a suitable profit margin to maintain its training investments. It is equally important for manufacturers to understand this and invest in the on-going training of resellers.



In my experience, most equipment installed is only set up to deliver 30-40% of its true performance capabilities. This is often because suppliers prefer to stick within their comfort zone. Indeed, I often find AV companies are still installing the same cabling that they were 5 years ago because it works. However, when it comes to hardware replacement, the cables are outdated and do not work with the new equipment.

I am also finding that a lot of large, alleged, system integrators have several sub contractors or smaller specialist companies working on projects with them to deliver an integrated solution. This is OK as long as the project manager or leading supplier understands all the technology being installed and keeps tabs on the quality of installation work throughout. Unfortunately, with IT and AV still being so far apart, finding the right project manager, quality standards and system integrator is still a large problem for end users.

So what happens next.....

Both industries are starting to see IT companies merging with or buying AV companies and vice versa. This surely is a positive move forward isn't it? Sometimes it is, but the IT and AV techies are still speaking different languages once joined together.

The challenge ahead for manufacturers is to make products easier to integrate and program, however, they are still loading products with multiple functionality that will

never be used and typically they all have multiple products all offering something slightly different. Some of the most exciting development areas are in Digital Signage and 3D technologies and the availability of screens and projectors to support this medium.

Within the next 10 years, I am sure that the gap between IT and AV will close but as new products come through from manufacturers, it is down to them to make sure that their integration partners are well trained and understand exactly what the product does and the best place in the market to pitch it. This is something that the IT manufacturers have always been good at. Unfortunately screen and projector manufacturers are more interested in the volume of hardware that are selling and are driven by numbers rather than solutions.

It is also important for distributors to work with resellers to make sure that they are designing and delivering products that do exactly what it said on the box and to maintain suitable margins on system integration products.

The industry cannot move forward without the skillsets, and substantial training is required to provide this. Training takes time and costs money, so is often overlooked if margins are tight. However, as the next generation of academics filters through education system, there is a greater level of understanding for technology and therefore we may all find integration easier to deliver in the future.

Only time will tell.