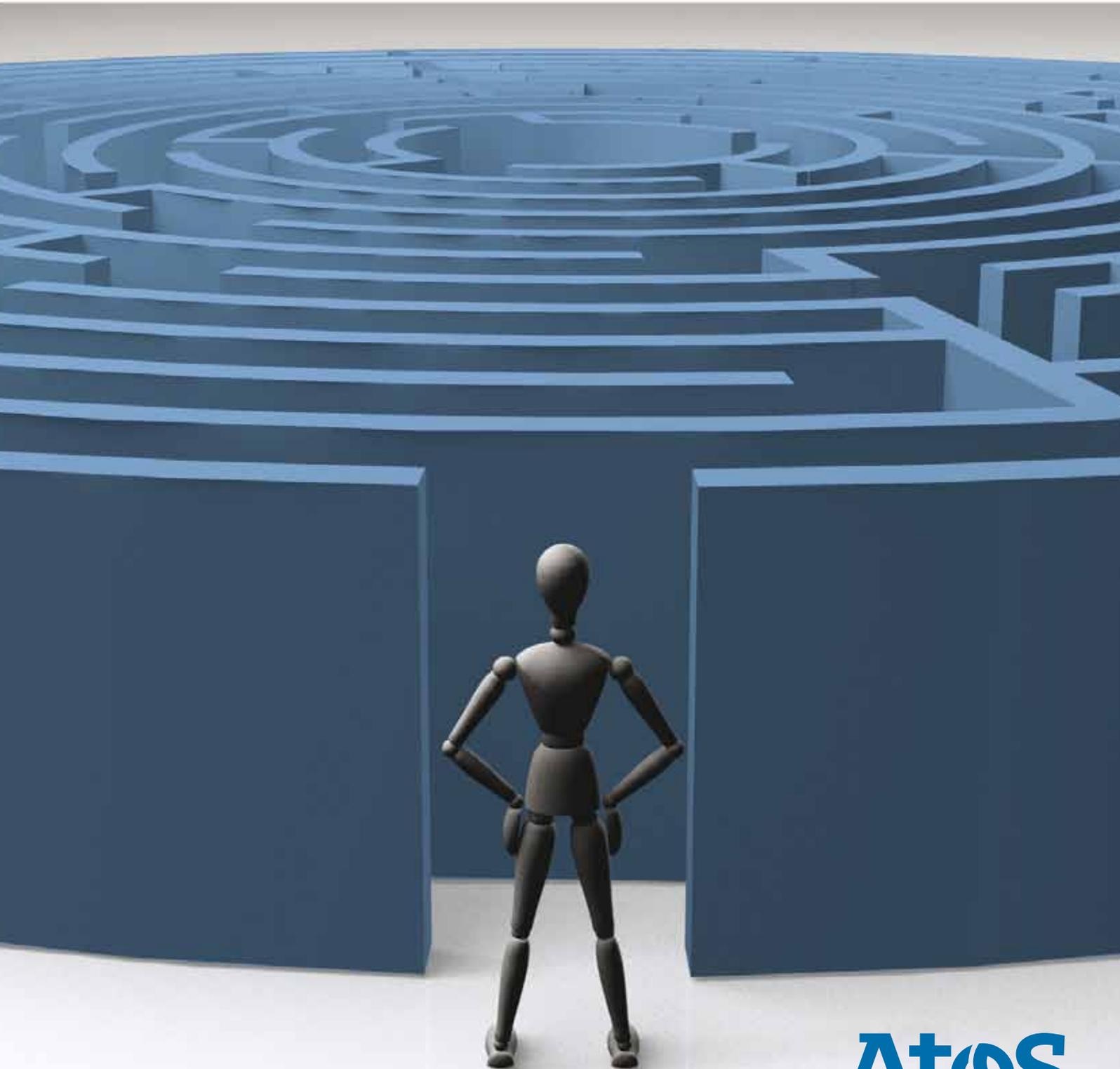


the 124 pitfalls of moving ICT infrastructure

how to avoid them and make sure your project goes like clockwork





“Before we started moving and setting up the offices in our buildings, I thought the big challenge would be moving the furniture. However, the biggest challenge turned out to be moving the ICT”.

Henk Frijters, Director of Facility Management Benelux, Atos

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Introduction

Whether you need a larger data centre or office location, are merging with another organization or just want to rearrange your office or data centre, there may come a time when you want to move. However, for most organizations, moving is not part of their daily work. And as if the move itself was not enough of a challenge, organizations often also implement new technologies during a move. A lot can go wrong in this situation, especially with regard to infrastructure, logistics and planning.

Of course, you don't want to jeopardise the continuity of your business, or your customers to be affected by the move. But have you thought of all the risks? If your employees can't get back to work on the first workday after the move, the result can be high costs and unhappy customers.

Atos, the international ICT service provider, has a team of enthusiastic and experienced ICT specialists whose daily work is moving ICT. Atos offers a package of services to support project based infrastructure changes under the name **Atos Move ICT**. Our services include moving and setting up ICT for offices, data centre moves, and ICT environments for projects and events.

Atos Move ICT takes away your ICT moving worries. We draw on the experience we have accumulated in the past 10 years in over 800 ICT infrastructure moving and consolidation projects. In all these projects, we encountered pitfalls that we successfully resolved time after time. This experience translates into thorough knowledge, detailed checklists, and a flexible work attitude. Instead of thinking in terms of impossibilities, our people focus on what is possible. We will not leave the building until your datacenter runs like clockwork and your employees can get back to work in their new office building.

'The 124 pitfalls of moving ICT infrastructure' draws on our most important experiences. You will read about some of the Atos Move ICT projects we carried out, and a number of our clients also have their say. You can use the instructions in this guide to avoid many pitfalls that may occur during a moving project in your organization. If you want to be sure of a smooth ICT move with minimal risk for your business continuity, make an appointment for a quick scan with an Atos Move ICT professional. The contact information is given on the last page

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Schedule

You should start by making a project plan and a detailed schedule for the move. In moving projects, the timelines of activities and ordering processes are often underestimated, resulting in delays and a stressful move. With these tips, nothing is left to chance.

1. Plan at a feasible level. Trying to plan to the minute is asking for delays and chaos. Daily targets are adequate for the project plan. Fifteen minute intervals are sufficient for the detailed schedule to direct the move.
2. Renovation or construction works should be completed before you bring the ICT and furniture into the building. If painters and carpet layers are still at work while you move, this will affect the schedule.
3. Aside from the building, it is preferable that the infrastructure on site is complete. Trying to move server racks and furniture on sandy paths can be difficult.
4. The floor plan that clearly establishes which server rack will be placed at which grid location and which employee will sit at which desk, should be finalized no later than four weeks before the move. Any last minute changes can be taken care of after the move. This will help avoid confusion that can cause schedule delays during the move.
5. Include room for delays in the plan and the detailed schedule. Unforeseen situations always come up.
6. Trucks sometimes take more time to get from A to B than indicated by the route planners. Take this into account in the detailed schedule.
7. Involve all the suppliers that will play a role in the installation or move in the planning as early as possible. This will enable you to take delivery times into account and save you from unpleasant surprises.
8. It is important that all of the parties involved have access to the correct version of the plan and the detailed schedule at all times, preferably on paper. If the digital version is not available during the move, for example due to a power failure or network problems, the move can simply carry on.
9. Formulate a plan in advance in case of delays. If the move gets seriously delayed for any reason, arrange for a back-up team to take over. This ensures that everyone involved is 'fresh' enough to bring the move to a successful conclusion.
10. A data copy or back-up to safeguard data before the move can take a lot of time. Allow enough time for this in the schedule. Always check the impact of a data copy on normal network traffic.
11. Establish a freeze period (a period during which no further changes can be made to the current infrastructure) and communicate this to all the parties involved. This period applies to all the relevant disciplines. Only deviate from this after approval has been given by the project manager or steering committee.
12. In the detailed schedule, include the minimum requirements that must be met by the ICT environment on the first workday after the move, so that the priorities are clear in unforeseen circumstances. After all, non-functioning financial systems have a greater impact on your operational management than a coffee management application that doesn't work.



“When an excavator damaged the network cables between two new buildings in a business park, one of the buildings was disconnected from the organization’s data and telephony network. Ensure that not only the building, but also the grounds are ready before moving in”.

Inventory

Planning a move requires an overview of what needs to be moved. You cannot rely on the Configuration Management Database (CMDB) always being up to date. Taking an inventory before the move supports two objectives: Firstly, the inventory of ICT equipment to be moved is clear, and furthermore the CMDB is brought up to date. Hence the first tip:

13. Taking a thorough inventory in advance can prevent many problems during execution. The CMDB in most organizations is 80% up to date, but that last 20% is often the cause of a lot of confusion during the project. During the decommissioning phase, the last phase of a moving project, both hardware and CMDB will be cleaned up. This has to be done thoroughly, because the effects on billing can be immense.
14. Check that the electrical connections at the old and new locations are the same. Especially in technical rooms, different connections are used quite frequently, such as socket plugs and high voltage outlets. Always bring in a qualified electrician for any changes.
15. Take IP changes into account. For example, printers that are moved can be assigned a different IP address. This must be modified at the print server, or employees will no longer be able to print. Changes in IP addresses also have consequences for back-ups.
16. Sometimes servers need other servers before they work properly and can be switched on. That is why it is important to describe the correct work sequence in the move inventory or in the detailed schedule.
17. In the inventory, check that the network connections are correctly numbered in the workplace and on the patch panels. This will save a lot of investigation work during the move.
18. Involve your ICT management department in the moving project and implement changes to the ICT landscape directly in your organization's ICT management tool. ICT managers need to be up to speed about the ICT landscape in order to do their work properly. After all, they need to have current information in the event of a high priority ICT problem.
19. Label all the wiring so that it is clear at all times how devices are connected to each other and to the network. Also label the net-

“Taking a thorough inventory in advance can prevent many problems during execution”.



work ports of the devices. If the move is executed in shifts, this makes the transfer easier. Furthermore, it will save time investigating during the move.

20. When moving a data centre, it is important to have an overview of the supply chain for the application landscape. At some time during the move, the application landscape will need to be divided. In that case, the overview of the supply chain will help to make the cuts in the right place. If the supply chain is not taken apart and put back together correctly, this can affect the proper functioning of your applications. This also applies to shared services as monitoring, back-up and storage systems.

Server racks

21. Receiving data centres may require that servers on the old location are removed and placed in new racks at the receiving location. However, not all servers fit in all server racks as standard. For example, blade servers are flat, but they are often deeper than 'normal' servers. That is why it is important to check before the move that new server racks have enough space. Alternatively, take this into account when ordering new server racks.
22. Also check how servers are mounted in a rack. There is no standard installation method for all server racks. For example, some Hewlett Packard blade rails do not fit in Minkels racks, because Minkels has square holes and Hewlett Packard has round holes.

23. The concept of warm and cold aisles is applied in many technical spaces and data centres, which is used to optimize the cooling of the equipment. Not all server racks are suitable for this. If this is the case, the servers must be taken out at the old location and installed one by one at the new location during the move. This also affects how the cabling is connected. It is important to take this into account in the schedule, because it takes a lot of time.
24. When planning servers in racks, always try to leave some extra space. The equipment can then release its heat better, there is enough space for the wiring, and there are fewer risks for the electricity supply.
25. When moving server racks, check whether the moving team should install the side panels of the racks or not. This can have an effect on the cooling and on the routing of cables through the rack to another server rack. Also note whether the cables enter through the top or bottom of a rack. Some server racks have no access from the top.
26. Sometimes equipment needs to communicate with systems that are at a greater distance after the move than before the move. This can, for example, affect Gigabit Interface Converters (GBICs) in the network equipment. Although these fibre optic connectors are easy to change, they are not cheap. Take an inventory of this before the move. It avoids unpleasant surprises with regard to costs, delivery times and planning.

Case: Radio 538



On 30 April in 2010 and 2011, the DJs of Dutch radio station Radio 538 set the tone for the biggest 'Koninginnedag' (Queens Day) party in the Netherlands. During a live event they welcomed national and international artists to their stage at Museumplein in Amsterdam throughout the day. This was largely made possible by Atos Move ICT.

The relationship between Radio 538 and Atos dates back to the Olympic Games in Beijing, where Atos was responsible for the telephony and internet traffic for Radio 538 for the first time. The on-location broadcasts of the popular radio show 'Evers Staat Op' during the Winter Games in Vancouver were facilitated by Atos.

“After our positive experiences in Beijing and Vancouver, where we broadcasted from the Holland Heineken House, we will be doing the same thing for other on-location broadcasts. We have found a reliable partner in Atos. They delivered top-notch performance for us”.

Alexander Josiassen, Technical & Operations Manager, Radio 538

On the basis of these positive experiences, Radio 538 asked **Atos Move ICT** to provide all ICT facilities which make broadcasts on location possible. Since then, Atos has assisted Radio 538 on location during broadcasts from a pirate ship at SAIL 2010 in Amsterdam, the ski paradise of Saalbach Hinterglemm in Austria and from the K rhaus in the Hague during the 2010 Football World Championship to name a few. **Atos Move ICT** will also assist in the relocation of the Radio 538 offices to a new location in Hilversum in 2012.

In 2012 **Atos Move ICT** provides Radio 538 with support on the connections they procured for their activities in the Holland Heineken House. Atos is responsible for all cabling on the premises, so in case of trouble, the **Atos Move ICT** team is on standby to immediately put it right.



Logistics

Have you ever considered the impact of the number of lifts on your move? This chapter discusses issues you will want to deal with before rather than during the move.

27. Coordinate in advance with all the parties involved in the move when they intend to use which lifts and loading/unloading stations to avoid having to wait for each other.
28. For a large move, arrange to have a lift technician on site or on stand-by. The technician can set the lifts to moving mode, so that the doors do not close automatically. The lift technician can also resolve malfunctions immediately to prevent delays.
29. If you are moving from a building where people are still working, make good arrangements with the location manager about the use of the lifts on the day of the move. Ask employees who are still present in the building to use the stairs or to use a designated lift only.
30. Distribute moving stickers to your employees. Have not only furniture, but also keyboards, mice and other smaller items stickered with the old and new workstation numbers. If there are any mix-ups, it will then be easy to determine where the goods came from and where they should go.
31. Have the equipment in technical rooms stickered by the ICT moving team or by the ICT management, preferably during the inventory phase.
32. Before the move, determine whether the old and the new locations are accessible or obstructed, for example by road works or bridges that can only carry three tons. Go over the route on the same weekday at the same time of day that you plan to move. This will provide valuable information about travel times and traffic conditions. Also consider vacation periods, national holidays and events in the vicinity of the old and new locations. For example, part of the area could be blocked off for a marathon or bike race. Provide alternative routes if that is the case. Be sure to share this information with your moving team.
33. Also check the routes in the buildings well before the move, both for furniture and equipment. Servers can sometimes be too large for a door opening; after all they are often assembled on site. The same applies to furniture that is assembled on site. This

“You might not give it much thought, but the number of lifts in the building can have a major impact on the time needed for the move”.

actually happened: A large oak meeting table was assembled and glued together in a meeting room, but had to be sawed in half for a move.

34. Walk through the old and the new buildings together with the moving company, so that you can plan the necessary equipment together. This could include three-wheeled trolleys, pallet trucks on pneumatic tires for tiled floors, and moving lifts.
35. In some cases server cabinets may not be tilted, for example if they have a lot of equipment mounted. If the cabinet cannot leave the room in the vertical position, the equipment will need to be removed and installed again at the new location. The time for this must be taken into account in the detailed schedule. But before you decide to take out the equipment - some moving companies have equipment to move server cabinets on their sides. Consult with the supplier to decide whether you can move the full server cabinet in one go after all.
36. In technical rooms such as main equipment rooms (MERs), sub equipment rooms (SERs) and data centres, it is better if not too many people work on a grid location at once; two people per grid location is the maximum.
37. Loading and unloading areas and data centres sometimes have locks with a pressure-sensitive floor and/or an anti-pass back system as a security measure. This means that people always need to enter and exit through the same lock gate. This also means

that people cannot enter the lock with equipment or enter with more than one person at the same time. The pressure sensitive floor detects that there is too much weight on the floor, and the system hermetically seals the lock preventing anyone from entering or exiting. Ensure that only one person uses the lock at a time and that they do not carry heavy equipment in the lock.

38. The weather gods are unpredictable, even on moving day. Arrange for your movers to bring plastic covers to protect the ICT equipment against the effects of the weather. In addition, a good mover will at least provide computer padding and separate computer boxes.
39. If the old or the new locations are in a shared area such as a business complex or a shopping centre, make good arrangements with the location manager about the routes to take during the move, opening outside normal business hours, and security.
40. An inventory will give you valuable information about the size and weight of the items being moved. Share this information with your mover to ensure that the truck is big enough and that the tail lift can hold the weight of the equipment.
41. The sequence of the move is important to avoid stress and blockages. All the ICT equipment must be disconnected from the workplace and loaded first, and then the furniture. Follow the reverse order at the new location. This sounds logical, but things often go differently in practice.



Safety

An ICT move is not without its hazards. Not only is heavy equipment being moved, the setup of the location also involves safety risks. In any case, you should consider the following pitfalls.

42. Ensure that a qualified first aid provider is always present at the old and the new location. After all, emergencies are hard to predict.
43. Coordinate safety measures and protocols. All parties that are present during the move must be aware of what to do in the event of an emergency.
44. Have a certified electrician disconnect and connect the power when a server rack with equipment is being moved, both for safety and in connection with any warranty conditions for your equipment.
45. ICT equipment is often placed on raised floors with the wiring underneath. The removal of floor tiles from such a raised floor can affect the stability of the floor. Consider that tiles can shift under heavy equipment.
46. Not all floors are built for heavy loads. That is why it is important to check in advance that the floor can support the weight that will be placed on it. Reinforce the floor if necessary. This will prevent the floor sagging under the equipment and causing injuries.
47. Inform people in the workplace if a floor is (partially) open so that they do not fall into the openings.
48. Hardhats are often made available for visitors at construction sites, in new buildings where work is still being done and in buildings where floors and ceilings are still open. Make sure your employees actually use them. Safety must be taken seriously.
49. Ensure that doors or server cabinets in a technical room open and close in such a way that employees can leave the room easily in case of an emergency. The doors must not form an obstacle and must therefore always open in the direction of the escape route.

50. Server racks should preferably be provided with earthing. This protects both your employees and your equipment.

51. If your employees need to leave a technical room that has a double lock in an emergency situation, they will need to make sure that nothing gets in between the lock gates. If one of the gates of the lock does not shut properly, the other gate will usually not open.

This blocks the escape route and your employees may no longer be able to leave the room. If the emergency results in an argon fire extinguisher being activated, the argon gas will displace the oxygen in the room and literally take your employees' breath away.



“The doors of server racks must not form an obstacle to the escape route”.

Facilities

The lubricant of the project is made up of the facilities that support the project. The materials and equipment listed below can make the move a lot easier.

- 52. Don't just leave the moving team dependent on mobile phones. Ensure that at the key moment, they also have access to several fixed telephone lines and write these numbers in the detailed schedule. This actually happened: During a major move in Eindhoven, the mobile network failed because, against all expectations, football club PSV won a championship.
- 53. Set up a digital environment for all the project documentation, to which all the members of the project have access. If documents are shared by email, the risk of using outdated versions is high.
- 54. Ensure that aside from digital versions, printed versions of essential documentation such as detailed schedules are also available. People may not always be able to access the digital environment during the move.
- 55. Remind all team members that mobile telephones and laptops need to be fully charged before the day of the move and that everyone should have the necessary chargers with them. On busy moving days, mobile telephone or laptop batteries can run out quickly.

“During a major move in Eindhoven, the mobile network failed because, against all expectations, PSV won the championship”.

- 56. If the old or new locations have a raised tiled floor, it is a good idea to have a floor tile vacuum lifter on hand. This will enable you to lift tiles out of the modular floor without problems.
- 57. Set up a project room at the new location, where anyone who is involved in the moving project can go. This makes it possible to monitor and discuss the status of the moving project in a quiet environment. The project room should have at least an internet connection, a meeting table, a whiteboard with pens, a flip chart and a conference telephone.
- 58. The moving team must have access to adequate tools, such as screwdrivers in various sizes, different pliers and small nuts and bolts. A label maker is also part of the standard equipment.
- 59. Furthermore, the moving team should have access to spare parts for the equipment to be moved, extra UTP cables, extra fibre optic cables and power strips. Unfortunately, it is not uncommon for cables to break during moves, which can be traced using a Fluke UTP cable meter.
- 60. It is nice to be able to consult with each other during the move. But what to do if the team is spread out over different locations? Set up a (video) conference call for the duration of the moving project. This will enable multiple employees to call in at the same time, allowing the team to consult from anywhere.



Atos Move ICT: Over 10 years of experience with ICT moving projects

The services of Atos Move ICT are carried out by a fixed team of experienced professionals. We specialize in installing, moving and migrating office and data centre environments using a project based approach and in creating ICT environments for projects and events. In the past 10 years, the architects, technical specialists, project and program managers and the Atos Move ICT project office have successfully executed more than 700 ICT projects for clients from several sectors in the Netherlands and abroad.

Atos Move ICT takes your worries away

Our professionals relieve your worries by sharing responsibility for the project with you. If desired, we can also give directions to your other suppliers. We have worked for many years with reputable companies for interior design, wiring, hardware supply and moving. We can advise you on how to arrange and configure your ICT infrastructure optimally, and we'll draw up the integrated planning and detailed schedule together with you. **Atos Move ICT** strives to achieve cost reductions on the ICT environment in every project.

“Atos Move ICT is synonymous with a motivated team of specialists that will achieve the goals agreed upon, before the deadline and within budget. That is what we go for. A deal is a deal”.

Atos Move ICT views the continuity of your business activities as the highest priority in the project. We do not leave the project location until we are sure that all the ICT equipment will function properly the next day and that there will be no obstacles for your employees to do their work as usual. **Atos Move ICT** will involve your ICT management organization in the project to make the transition from project to established organization as smooth as possible.

Our methods demand a high degree of flexibility, which is the most appealing challenge for the professionals of **Atos Move ICT** in their work. We don't baulk at strict deadlines, which is part of the reason that Radio 538 and the Holland Heineken House chose the services of **Atos Move ICT**.

Atos Move ICT offers added value by executing your project tailored to your needs, within your budget and according to your wishes. If you are looking for professional communication about your ICT project to other target groups, **Atos Move ICT** is also the best choice. We provide communication media for the relevant target groups in which we make the translation from technology to concrete results for your employees. Our communication consultants provide the lubrication that enables the project to go smoothly.



Infrastructure

Involve your ICT supplier in a new construction project from the ground up. This will help ensure that the technical installations will meet all the requirements. After all, a lot can go wrong when it comes to ICT infrastructure...

61. A demarcation point (main point of entry) is the point of separation between the equipment and wiring of a service provider on one side and of the subscriber on the other, where connection lines enter the subscriber's building. These points used to be installed by KPN in every new building as standard. Nowadays, however, there are several telecom suppliers and the installation of a connection from inside to outside is no longer a standard task for KPN. The telephony provider can also play a role in the installation of a demarcation point. Take this into account.
62. If the distance between the different locations of an organization is greater after a move, this can affect network performance.
63. The size of cable ducts, the space under floor or ceiling, and the openings beside or under thresholds partially depend on the type of wiring that is used in a building. Discuss this well in advance with the network specialist in your ICT moving team.
64. Ensure that there is 'over-length' on wiring and place spare connections under the floor. If it is found after the move that more connections need to be added for a workstation, or that connections need to be moved, no new cables will need to be pulled through. The floor will not need to be completely opened. The extra length is cheaper than having new wires pulled and it will cause less disturbance for the employees who are already at work at the location. This applies to both data and electricity connections.
65. It is highly recommended to have a current wiring plan of the old and new locations on hand.
66. A move from a business complex in which the other tenants use the same ICT facilities as the group that is moving poses an extra challenge. The ICT infrastructure will need to be untangled. When doing this, pay special attention to switches, routers, connections and shared servers.
67. Environmental factors can affect the functioning of wireless routers. Don't just assume that the router at the new location will work. Check this beforehand. This will enable you to take timely measures if necessary.
68. ISDN, ADSL, VPN site-to-site and other connections are usually included in the move. Begin the preparations for this at least half a year in advance. Suppliers often have long delivery times for this kind of request.
69. If you are moving to an existing location, check that the wiring at the new location corresponds with the wiring at the current location.
70. When setting up server cabinets, ensure that there is enough space for the wiring. If there is not enough space in the cable ducts of the cabinet, chances are that cables are pulled directly through the cabinets, resulting in a 'spaghetti' of wiring. Furthermore, the air conditioning flow through the server cabinet will be affected if the wiring is not properly secured.
71. Not only do the server racks need to have the right power connections for the servers, the racks also need to be connected to the data centre electricity and UPS. When doing this, please take into account that every cabinet has an electricity peak load. Never calculate with the average electricity load to determine how many servers can fit in one rack. You may end up with a server rack going down or, worst case scenario, an entire data centre blackout.
72. Mount servers in the server racks with the correct fasteners. For instance, if the wrong screws are used, there is a chance that the server will need to be sawed out of the rack if it is no longer needed or needs to be moved.
73. Be well informed about the distribution of the electrical groups in the server racks. Sticker the different groups with stickers of different colours, so that you know which power strip belongs to which group. In this way, the ICT manager will also know what the effects will be when maintaining a group or power strip if they switch off a group or disconnect a power strip. Also consider double power supplies with separate generators.
74. When setting up or moving the network, take into account VLANs for VoIP telephony, special user groups and call centre employees. Without the correct VLANs, there is a chance that employees will not be able to access their applications.
75. Ensure that there is adequate power supply and cooling capacity for the ICT equipment in the technical rooms at the new location.

“If there is not enough space in the cable ducts of the cabinet, chances are that cables are pulled directly through the cabinets, resulting in a ‘spaghetti’ of wiring. Furthermore, the air conditioning flow through the server rack will be affected if the wiring is not correctly fastened”.

Testing

You want to be sure that your equipment will work again after the move. Testing is essential for this.

76. Before the move, perform a zero measurement with a cold reboot of your equipment. A logical time for this is the first day of the agreed freeze period. If you encounter any problems during the cold reboot, there is still time to solve them before the move. A second measurement will be performed after the move. The results of this will be compared to the results of the zero measurement. If you get any complaints from your employees after the move, for example about decreased performance or reduced functionality, you will have a tool to determine the source of the complaints.

77. Always have newly installed wiring certified and ask for the test reports.

78. Coordinate test protocols with all the parties involved. Don't just involve the testers and the moving team, but at least also the end users and your ICT management organization.

79. Do you have a dual environment? Request the test reports for the alternate environment. The alternate environment may be needed during the move.

80. Check equipment in advance for hardware malfunctions, such as defective hard drives.

81. Spot check the configuration of network connections at the new location.

82. When moving a call centre, it is a good idea to have a spare headset of the type used by your organization on hand. This will make it possible to check the functioning of the devices at the new location before the call centre needs to be operational.

83. It might seem painfully obvious, but still, it happens. If you do have problems with equipment, first check that the plug is properly connected in the socket and that the equipment is actually switched on.



Business continuity

After the move, you will want your employees to get back to work in full force immediately. After all, you have customers to serve.

- 84.** In emergencies or unforeseen circumstances at the new location, it is good if you can halt the move and return to the old location. The move will indeed be delayed to a later time, but this will avoid risks to business continuity. For this reason, include 'Go/No Go' moments in the detailed schedule and indicate who will make the decision to continue or to reverse the move.
- 85.** Ensure that the moving team is properly familiarized with the particulars of the layout and installations of the locations. This actually happened: A few years ago, someone pushed the wrong button during maintenance work in a data centre in Amsterdam. Instead of the light switching on, the fire extinguishing installation was activated. Pressing the button again could have prevented the activation of the fire extinguishing installation.
- 86.** Remove packaging material before equipment is brought into a data centre or other technical rooms. Cardboard in particular produces a lot of dust.
- 87.** Take out transport insurance for the equipment and the furniture you are moving. Also check whether your organization has insurance to cover staff for bodily injury.

“A few years ago, someone pushed the wrong button during maintenance work in a data centre in Amsterdam. Instead of the light switching on, the fire extinguishing installation was activated”.

- 88.** Check the maintenance contracts for your equipment. These may include clauses with regard to moving. Some suppliers require that disconnection and connection, and sometimes even the moving of equipment, is done by certified technicians, often from the supplier itself. This is often the case for multifunctional printers (MFPs). You run the risk of voiding the warranty if you don't take care of this.
- 89.** During the move, transport the equipment and the backups separately. This actually happened: A moving truck that was carrying the equipment and the backup burst into flames on the way. You can imagine the effects on the business continuity.
- 90.** Does your organization have an alternative or emergency plan? This can be a useful tool to determine who is authorised to make decisions in the event of a possible crisis situation during the move.
- 91.** There are businesses that rent out containers with a small, fully furnished data centre inside that can be temporarily placed at your location. This can serve as a backup during the move.
- 92.** Never connect a laptop to the power supply of a server rack. This can cause the electrical group to fail, with all the ensuing risks. Also, once the servers are put in place, start them one by one to avoid voltage peaks and power failure.
- 93.** Something may break during a move. For this reason, it is a good idea to have the suppliers of your most important equipment present on site during the move with extra equipment and parts.
- 94.** A follow-up team will be on site on the first workday after the move. This team will be standing by to ensure that everything continues to run. Furthermore, your employees will have immediate support for minor problems and questions about new settings.





Case: Holland Heineken House at the Olympic Games

The Holland Heineken House has been a home away from home for the Dutch sports world during the Olympic Games for years. The popularity of the Holland Heineken House increases every year. It is generally seen as the hottest place in town. Despite the temporary nature of the Holland Heineken House, the location is heavily visited and fast, reliable and flexible ICT and telephony services are very important.

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Atos was asked to build and manage the ICT facilities for the Holland Heineken House for the Olympic Games in Beijing in 2008. This project was very successful, which led to Atos being chosen as a preferred partner again for the Olympic Winter Games in Vancouver in 2010 to supply both the ICT and telephony services. The services of **Atos Move ICT** were used for this. Atos will deliver their services again during the Olympic Games in London, where the Holland Heineken House will be larger than ever.

This project stands out because it has to be executed in record time. **Atos Move ICT** has

“Reliable and fast internet connections are an absolute must for the Holland Heineken House. That is why we are glad to have found a reputable partner in Atos. During our collaboration at the Olympic Games, Atos proved that they are able to guarantee the proper functioning of critical ICT processes. The complexity of this project, not forgetting the tight deadlines, demands flexibility, expertise and commitment. Atos excels in this”.

Dennis Hogenboom, Senior Sponsor Manager Holland Heineken House, Heineken Nederland

only two weeks to provide the complete ICT infrastructure for the Holland Heineken House. Among other things, this includes the connections that are needed for the press centre, the ICT setup for the offices of NOC*NSF and Heineken, as well as the necessary connections for the payment system, access control and the facilities for the meeting rooms in the Holland Heineken House. Broadcasting stations RTL, Radio 538 and NOS make use of telecommunication lines

from Atos. All visitors of the Holland Heineken House have access to free WiFi. The unique services of Atos Move ICT have added value for the Holland Heineken House.

You can download the case study (in Dutch only) on nl.atos.net/HHH. For more information please visit www.hollandheinekenhouse.nl/english/info.



Security

Of course, your organization has well-organized security for people, buildings and equipment. During a move, such good security can cause unforeseen problems.

- 95.** Discuss with the security staff of the old and new locations how the ICT resources will be secured during the move, for example in locked rooms or with cameras. ICT equipment sometimes seems to 'disappear' during moves.
- 96.** Provide security with a list of all the parties involved in the move and check ahead of time that they have all been granted access. Also arrange that the security guard will only let unregistered persons through with the approval of the project manager. These people must then be registered, of course. In this way you will know that only authorised persons have access to the locations.
- 97.** In addition to registering the moving team for access to the locations, you should also arrange access authorisation for rooms that the moving team needs to enter. This could include main equipment rooms (MERs), sub equipment rooms (SERs), data centres, and loading and unloading stations.

“Make good arrangements for security during the move. ICT equipment sometimes seems to ‘disappear’ during moves”.

- 98.** If a building has an automatic alarm timer, make a clear arrangement about the timing of the move. You don't want an automatic lock-down or an alarm suddenly going off.
- 99.** Server cabinets are usually locked and equipment can be secured to furniture with cables or locks. Ensure that the moving team has the necessary keys or that the key manager is present during the move.
- 100.** Servers and network equipment are often connected to a monitoring system. Ensure that the equipment being moved is taken out of the monitoring system ahead of time to prevent the alarms going off at the ICT management organization. After the move, make sure the equipment is reconnected to the monitoring system as quickly as possible.
- 101.** In some cases, data and telephone lines form part of the infrastructure of the building, for example emergency telephone lines for lifts. These do not usually need to be moved. If these lines are connected to the network of the organization, they will need to be migrated before the move.
- 102.** Either inform the moving team of the passwords for essential systems for testing purposes during the move or have an authorised person present to login to these systems.



Communication

The quality of communication can make or break the success of a moving project. The following tips will help you on your way.

103. A moving project often involves several parties and not everyone can be found in the organization's 'face book'. Draw up a list of everyone with a role in the moving project with their contact information at the start of the project, and make this list available through the digital environment.

104. When starting the project, identify what target groups will be involved in the move and what the impact will be for them. Draw up a communication plan to establish who needs to be informed of what, when. A move can be a drastic event for your employees and will not be welcomed by everyone. It is worth considering putting out a move newsletter that is distributed regularly. This may help create understanding and support, and allows you to provide regular updates on the move.

105. Make it clear well before the move what actions the employees being moved will need to take themselves and what activities the moving team will take on. Also ensure that these arrangements can be found in the move newsletter, on the bulletin board and/or in the digital archive.

106. Ensure that each department that is moving appoints a move coordinator who knows the particulars of the department and can assist the moving team in case of questions and problems. The move coordinator will have the mandate to decide on the layout of the floor plan.

107. Remember to update your contact information in good time, for example on your letterhead, business cards and website. This will avoid your customers not being able to find you.

108. Something that always sits well with employees is a welcome gift at the new workplace, for example a regional delicacy. Use an accompanying note to warmly welcome your employees to the new location and explain how the follow-up period has been arranged for the first few days after the move. This charm offensive will help your employees feel at home at the new location.

“Ensure that each department that is moving appoints a move coordinator who knows the particulars of the department and can assist the moving team in case of questions and problems”.



109. Moving projects are regularly used as an opportunity to implement new technologies in the organization. If you decide to switch to MFPs, VoIP telephony, video conferencing or Office Communicator, for example, train your facility employees and ICT management organization and make sure that instruction manuals are handy in the area of the new equipment. When implementing a new telephony solution, have all the secretaries and other heavy users follow a training programme to maintain maximum accessibility.

110. During the move and the follow-up period, it is preferable to have the members of the moving team and the suppliers involved wear company clothing so that they are recognizable to everyone.

111. Some printers automatically send a message to the supplier if, for example, a cartridge is empty or a defect is detected. Inform the supplier about the move to avoid cartridges being delivered incorrectly or technicians coming to the old address.

Resourcing

Moving projects start with choosing the right people to carry out the project for you. Consider the following issues when you do this.

- 112.** Organizations often form a moving team of employees. However, the work involved in a move is often underestimated and will compromise the regular duties of the employees. If you decide to use your own employees, make sure they can transfer some of their daily tasks to colleagues.
- 113.** Another risk of using your own employees is the possible lack of experience with moves. This is, after all, not a daily activity for your organization, unless you are running a moving company. For this reason, always involve professionals. They can save you from pitfalls like the ones mentioned in this book.
- 114.** Roles, tasks and responsibilities within the moving team are established at the beginning of the project. You will not have time to determine who can make decisions if something doesn't go as planned during implementation.
- 115.** Not every moving company is adequately prepared to move ICT equipment, which takes more than arranging a warm blanket for your monitor. A mover is not generally the best person to solve your ICT questions. Your ICT supplier can tell you which moving companies can provide you with good service.
- 116.** In the chapter about communication, the tip is given to make a list of all the employees involved in the move with their contact information. In this list, also make note of who will serve as a backup for which employees in the event of illness or other unexpected absence. Coordinate this with the backup employees in advance so they are prepared for such a situation.
- 117.** To avoid back injuries among the employees of your moving team, server racks are built up from bottom to top, not top to bottom.

“Don't underestimate the power of coffee as the lubricant of a motivated team”.



- 118.** Moves often take place outside office hours. Go through the schedule for the move with all the employees and suppliers involved in good time, so that everyone is in the right place at the right time.
- 119.** Another consequence of working outside office hours is that the employees will want a meal during the move. Provide good catering at the locations where people are at work. This doesn't have to be expensive, but it will certainly be appreciated by your employees. A shared meal gives you the opportunity to discuss current issues and nip potential problems in the bud. Besides, a good (hot) meal is much nicer than sandwiches from home. Where possible, take dietary preferences into account.
- 120.** In a big move, there is also a chance that you will be working in shifts. If your employees do not live in the immediate area, arrange for hotel stays. This will avoid them having to drive far after a hard shift and allow them to be back on site quickly for the next shift.
- 121.** If you are working in shifts during the move, include time in the schedule for transition and briefing.
- 122.** Make clear arrangements with your moving team about coffee and smoke breaks.
- 123.** For important systems, it is recommended to have the ICT management participate in the move. The same applies to technical specialists for your software and hardware suppliers and for your electrician. These very important people should not just be on call, they need to be part of the project team.
- 124.** Appoint a fixed crisis team for big moves. These are the people who solve problems from a central location, so that the moving team can continue with its activities.

Case: Large datacenter consolidation program

Background and business issues

One of the largest insurance companies in the Netherlands has grown significantly throughout history and, while the IT environment grew larger and larger, so did the business needs to rely on a 24/7 availability of business support systems and an impeccable and fast IT infrastructure. To meet these business needs, the firm initiated a program to improve the continuity of IT services to guarantee the availability of applications for business critical processes. Atos was asked at the beginning of 2011 to take responsibility for clearing out two data centers in and moving a large part of the IT infrastructure to Atos datacenters between March and November of 2011.

Datacenter number one was outdated and the premises were to be sold. It held over 500 IT components, of which 150 had to be moved. On the premises of the second datacenter new buildings were planned, but electricity outages were predicted to happen during the building activities. Because of the risks for business continuity, it was decided to clear out the second datacenter before the start of the building activities. This DC held more than a thousand IT components, of which over 500 servers and other components needed to be relocated. The pressure on time, security and application availability was enormous, but the Atos team was ready for the challenge.

Infrastructure and (re-) location services: the Atos strategy

Atos offered to set up the basic infrastructure in two Atos DCs, therewith creating a 'short distance twin' situation. This twinning connection enables high availability of business critical applications and supports disaster recovery solutions.

The strategy of the relocation project aimed to prevent business risks as much as possible. The relocation team first gained insight on the interdependencies of business critical applications. This chain visibility and the thorough inventory that was made of both DC's then were the key ingredients for decisions concerning the relocation order and for the planning of the entire project. To avoid any risks during moves, the preferred method was relocation by migration, using data lines. If a physical relocation was unavoidable, data was first back upped and machines were thoroughly tested before initiating the actual move.

To avoid business process disturbances, most migrations and relocations were performed during weekends. In some weekends over 140 people were on duty to manage the migrations and relocations and on stand-by for a roll back scenario, in case a calamity might occur.

Cleanup and removal

After all active machines and data had been moved to a new location, the second step of the cleanup team was to secure all data left on the residual machines. All equipment, racks and cabling above and under the DC floors, save building-related installations, were then removed from the DC's. Every piece of equipment was first rid of all its data before it was transported to a destruction location. For every shredded piece of hardware the insurance company received a signed and certified destruction statement. At the end of December 2011, Atos delivered two clean data centers as planned and in time for key transfer.

Results

During the program, the insurance company and Atos have constantly identified and mitigated all risks to ensure business continuity and to stay on top of the program and its goals. This joint approach was one of the key success factors for successfully finishing this part of the program.

The relocation and migration projects have been delivered on time and without any significant disturbances in essential business processes. Moreover, our client experiences a 50% increase in performance than before the program. The Program Manager at our customer said: *'The move and migrations in the program have had quite a few challenges, Murphy has become a close friend of the team. However, thanks to the persistence, knowledge and motivation of the team, we were able to make this program a huge success for our company.'*

About our customer

Our client is one of the largest insurances groups in the Netherlands with over 20.000 employees serving customers all over Europe.

If you wish to consult our client about the data center consolidation program, please contact us at info-nl@atos.net.

About Atos

Atos is an international information technology services company with annual 2011 pro forma revenue of EUR 8.5 billion and 74,000 employees in 48 countries. Serving a global client base, it delivers hi-tech transactional services, consulting and technology services, systems integration and managed services. With its deep technology expertise and industry knowledge, it works with clients across the following market sectors: Manufacturing, Retail, Services; Public, Health & Transports; Financial Services; Telecoms, Media & Technology; Energy & Utilities. Atos is focused on business technology that powers progress and helps organizations to create their firm of the future. It is the Worldwide Information Technology Partner for the Olympic and Paralympic Games and is quoted on the Paris Eurolist Market. Atos operates under the brands Atos, Atos Consulting & Technology Services, Atos Worldline and Atos Worldgrid.

For more information, visit: atos.net

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