Teleservice

Considerations & How to request

Content

1 General

This manual is a guide for preparing, requesting, and describing the requirements for performing teleservices. The teleservice will be performed by an MLogics technician when requested by the customer. Mlogics offers several methods for performing a teleservice.
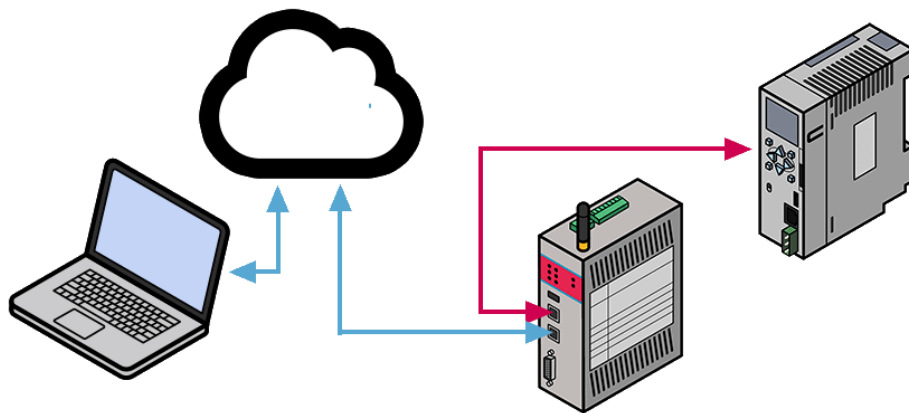
1.1 Teleservice Requirements

Depending on the way teleservice is performed, there are different requirements. However, there are some general requirements, which should be considered when requesting a teleservice.

- **A Responsible Person is required**. It is important that it is a single person who communicates with Mlogics to improve and concentrate the information. This responsible person should be in charge of coordinating the Teleservice in the field. This person must also have the technical ability to understand and communicate the problem.
- **Access to electrical/mechanical personnel**, depending on the type of problem, to be able to perform operations, verifications and manipulations in the field
- **Patience**. Teleservice tends to be tedious and time-consuming, because local staff have to check several things while under pressure. Patience is needed to better support Mlogics staff in diagnosing/resolving the problem.
- Availability of the plant/area to be able to carry out eventual tests and evaluation checks.
- A method of performing Teleservice. The methods are described below.

1.2 Costs & Warranties

Depending on the problem and any contracts, Mlogics will evaluate each request individually and decide whether the Teleservice can be covered by a warranty, subject to a contract or should be quoted independently. If the teleservice incurs costs to the Requestor, Mlogics communicates this situation clearly prior to the start and requests confirmation to proceed.

1.3 What problems can be solved by Teleservice?

It should be noted that not all problems can be solved via a Teleservice. Some issues require the presence of maintenance personnel and/or Mlogics. In general, it can be said that Mlogics requires the availability of field maintenance personnel to perform operations and field verifications when requested.

In general**, the following problems may not be resolved**, but in instances they can be diagnosed:
- Mechanical Failures of Some Equipment
- Electrical wiring failures
- Communication wiring failures

The following problems can generally be resolved:
- Errors in Process Control Software
- Errors in processes, such as a process that has a failure
- Equipment Configuration
- Process Configuration

- Create and restore backups

However, the great value of a teleservice comes from the ability to diagnose eventual problems. While many problems cannot be solved, they can be diagnosed, which can reduce maintenance time significantly.

1.4 How to request Teleservice

There is no communication channel dedicated to teleservice, but teleservice is requested through any communication channel with our staff. Our staff coordinates and organizes the teleservice.

1.5 What information should be provided to Mlogics

The information that is required to be able to help with a teleservice depends highly on the problem at hand. However, the following serves as a guide for the applicant. If more information and/or support is required from the plant, it is requested by Mlogics.

- Who is the person in charge/coordinator of the Teleservice. It is important to improve the fluidity of the flow of information.
- Where in the Process and/or plant/equipment the problem exists
- How the Problem Manifests Itself
- When the problem occurs. It occurs always or during certain stages.
- Which is what was done/happened before the failure. Was there a power outage? Were there engine failures? Were manual operations and/or maintenance performed?
- What has already been done and what maneuvers have already been carried out by the maintenance department.

In general, it is important to provide as much information and context as possible to the problem. Each piece of information can help form a more complete picture of the failure and can reduce it. It is important to provide confirmed and complete information.

2 Tips for Better Delivery of Information During the Service

To improve the delivery of information and reduce the time of diagnoses, we want to give the following tips based on our experience.

2.1 Performs all reasonable pre-teleservice maintenance diagnostics

Before invoking a Teleservice, perform all reasonable diagnostics by maintenance to diagnose the fault. Teleservice is there to support when the maintenance team has already made all its diagnoses and can deliver a very concise report on the failure.

If the maintenance department is still unable to describe the problem, it is usually an indicator that the initial diagnostic/maintenance steps have not been taken.

It is not a good use of a Teleservice to detect that an automatic has fallen or a sensor of a valve is defective.

2.2 Accurate, concise and complete information

It delivers the information about the fault or requested in a precise way, but also concisely.

Information such as "The PLC is failing" contains too little information to be useful. It would be more important to describe the reason why you declare the PLC at fault. For example, better would be information such as "I have the Fault, SF, and BF LEDs on in the First Module."

It is also important to provide information in a complete way and avoid or clarify ambiguities. For example, if you're asked to review a board, don't respond with information like "The automatic is low, I raised it." Better is: "The F2 automatic was low on the TC01 Dashboard."

## 2.3 Under process issues, describe what is expected to happen at a stage and what doesn't work.

Descriptions like "The transfer process isn't working" don't give away much information. Instead, explain what is expected to happen on the stage, and what doesn't. It does not assume that the technician knows all the processes by heart.

Remember that Mlogics technicians are experts in the control system and know the technology, but they don't necessarily know by heart the process that should work right now on some piece of equipment. In general, it's better to describe what is expected to happen at the stage, rather than waiting for the technician to review the program to find out how the process is implemented.

2.4 Use consistent technical terms

Mlogics Technicians are aware that not all people handle the correct technical terms in all areas and can adapt to the "technical language of the plant". However, it uses clear, unambiguous terms to describe problems.

You don't use different terms to describe the same thing during the Service. This only adds to the confusion and can lend itself to misinterpretations.
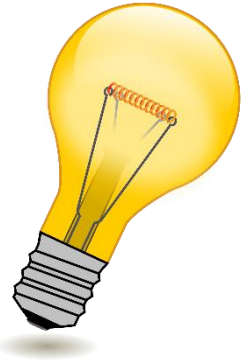
2.5 It informs well what it does and what it observes in the field

Always remember that the teleservice technician is not in the field, and cannot read your mind. It delivers what you observe, even though the information seems irrelevant. Information such as "No modification seen" can be very helpful.

Of course, it reports all the operations well at the time you are performing them. If what you do is not well communicated, it can lead to misinterpretations and diagnoses. Remember that technicians may be monitoring some equipment via communication and if it restarts without warning, it can be diagnosed as a network failure or other causes.

2.6 Reports all operations that are executed directly <u>and in parallel</u>

It informs well the operations that other maintenance and/or operation personnel perform in the system. If you don't communicate well, events can occur where one party interferes with another party's operation.

If someone starts a simulation or reboots a piece of equipment, communicate the operation. Remember, in many instances information is being reviewed directly on computers and if someone interferes without warning, it can lend itself to confusion and erroneous conclusions.

2.7 It delivers all the requested information even if it seems "redundant."

In circumstances, it may appear that technicians are consulting non-relevant or redundant information. Please provide the requested information, because in many circumstances information is consulted to rule out other failures and also because technicians have access to information and experience that plant maintenance may not have.

Sometimes they also consult for information that at the moment seems not relevant, to arrive and rule out other failures.

2.8 Provide all the background to the fault, without omitting certain information

It delivers all the information and context to the fault. It does not omit manual interventions that perhaps should not have been made. The more information that is delivered, the better and faster the resolution.

2.9 Reports when an issue has been resolved

Inform well and clearly when the problem was resolved. There's nothing worse than technicians still on alert looking for a problem, when in fact it was solved. It also communicates well the causes of an eventual resolution of a problem. We all want to learn and understand failures.

2.10 Be patient

We know everyone is under pressure. However, diagnosing a problem takes time. Sometimes it may appear that the problem is not being worked on, but in general our technicians review all available means to resolve a fault. Even if you don't see anything happening on the screen or any chat, usually the technician is reviewing other information.

Be patient, Mlogics is interested in solving the problem and we are trying to solve it as efficiently as possible.

3 Teleservice via "Anydesk"

The "Anydesk" software is a remote desktop application and allows another user to connect to a computer and control it remotely.

3.1 Internet Connection

In order to function properly, the computer used to perform the teleservice requires an Internet connection. There are several options on how to make this type of connection. The most common is a wireless connection (Wifi).

3.1.1 Ethernet connection

If the computer already has internet access, skip to the "TeamViewer" item (you can check internet access by entering the computer's web browser and looking for some information).
To connect a computer that has never been connected to the internet, you must follow these steps.

1. Connect the Ethernet cable (cable used for internet connection) to an available

   internet network port on the computer (usually on the back of the computer), if there is no network port available consult your company's electrical or IT department for a solution (Possible solution: if you do not have network ports you can use an Ethernet-USB adapter.

2. On each network port there are usually two lights (green and orange), these lights start flashing when the cable that is connected to that network port is communicating.

3. Enter the web browser (Internet Explorer, Google Chrome, Firefox, etc.) to search for any information and confirm access to the Internet.

"If you still don't have access to the internet **, you should inform your company's electrical or IT department** so that they can fix the connection problem."

3.1.2   WI-FI connection

To connect the PC to the internet through a WI-Fi signal, the computer must have a Wi-Fi network card installed, if it does not have this card installed it will not be able to connect to a Wi-Fi network.

Usually this card is included in Notebooks, for desktop computers you can use a USB-Wifi adapter (in case there is only an   Ethernet network).

1) If the teleservice will be performed to a notebook, you simply need to perform these steps.

- Click on the Wi-Fi icon at the bottom right of the screen
- Activate WI-FI
- Find the name of the network for internet connection
- Enter the password.

2) If the teleservice is performed to a PC, you must perform these steps.

- Go to "Network & Sharing Center" and click on Adapter Settings.
- Click on "Set up a new connection or network"
- Click on "Manually connect to a wireless network" or "connect to the internet"
- Enter the network name and password.

3.2 Anydesk

If you already have the Anydesk installed, go to the item "start and adjust the Anydesk", notify the MLogics company when the station is configured with the TeamViewer to start with the teleservice.

3.2.1 Download Anydesk

https://download.anydesk.com/AnyDesk.exe

3.2.2 Start Anydesk

Launch the app from the Start menu or from the icon on your desktop.

The program will assign you an ID and a password, allowing only people with that information to connect to that computer.

The company requesting the teleservice must send the ID code and password via email to MLogics (it must also notify that the teleservice can be performed).
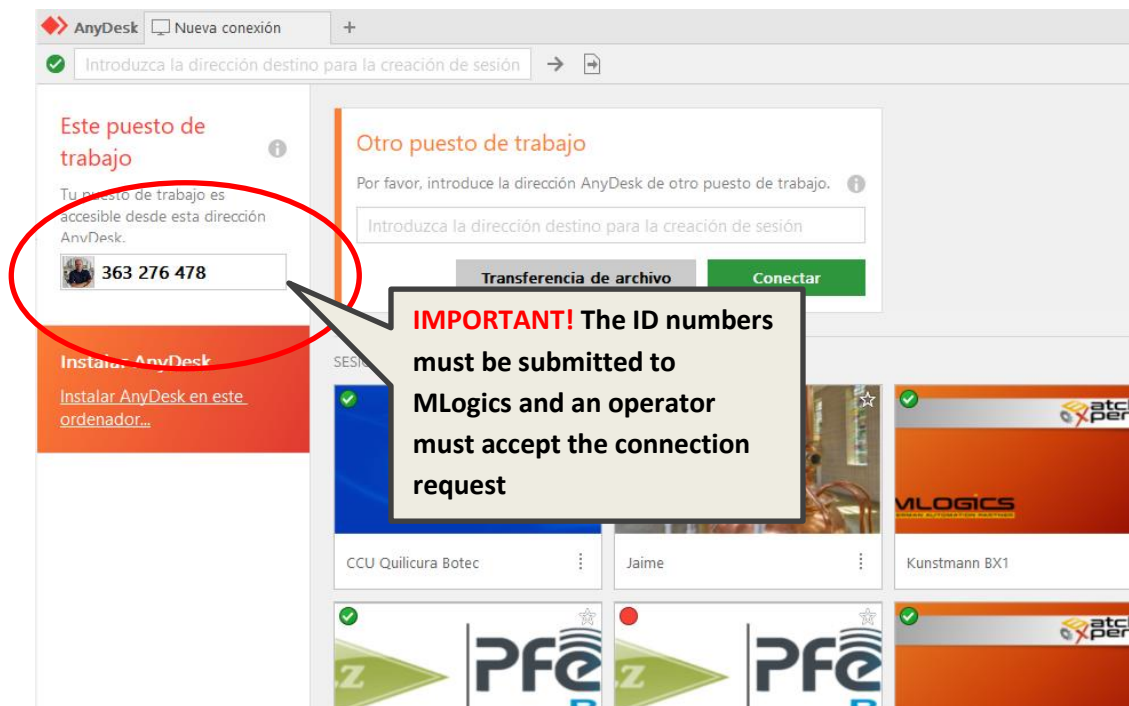
4 Teleservice via "VPN"

A VPN stands for 'virtual private network'. It's a digital tool that reroutes your internet traffic through a secure tunnel, hiding your IP address and encrypting your data. In the background, it allows an authenticated person to enter the plant's automation network.