

Technical Note 1305-01

Configuring Cisco 892 units for remote access

Summary

This technical note describes an example setup for the networking of Secure Rig Server built with Cisco 892 routers for field operations

Audience: All PetroDAQ Customers

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Platform: Secure Rig Server

Keywords: Port Forwarding, Cisco 892 Configuration, Remote Access

Problem Description

The Cisco 892 router is designed to provide a private network for the computer and other devices attached through the LAN ports. The connectivity to the outside world is done via the WAN port.

In rig operations, it is sometimes necessary to access the services running on the Secure Rig Servers via the WAN port.

Secure Rig Servers are shipped with a configuration that allows access to the services on the LAN ports only. Access via the WAN port is blocked off by default.

In addition, at the OS level the services are blocked by the Windows Firewall.

Suggested Solution

The recommended solution is to selectively enable access to the network ports corresponding to the services that need to be accessed.

The following instructions provide access to:

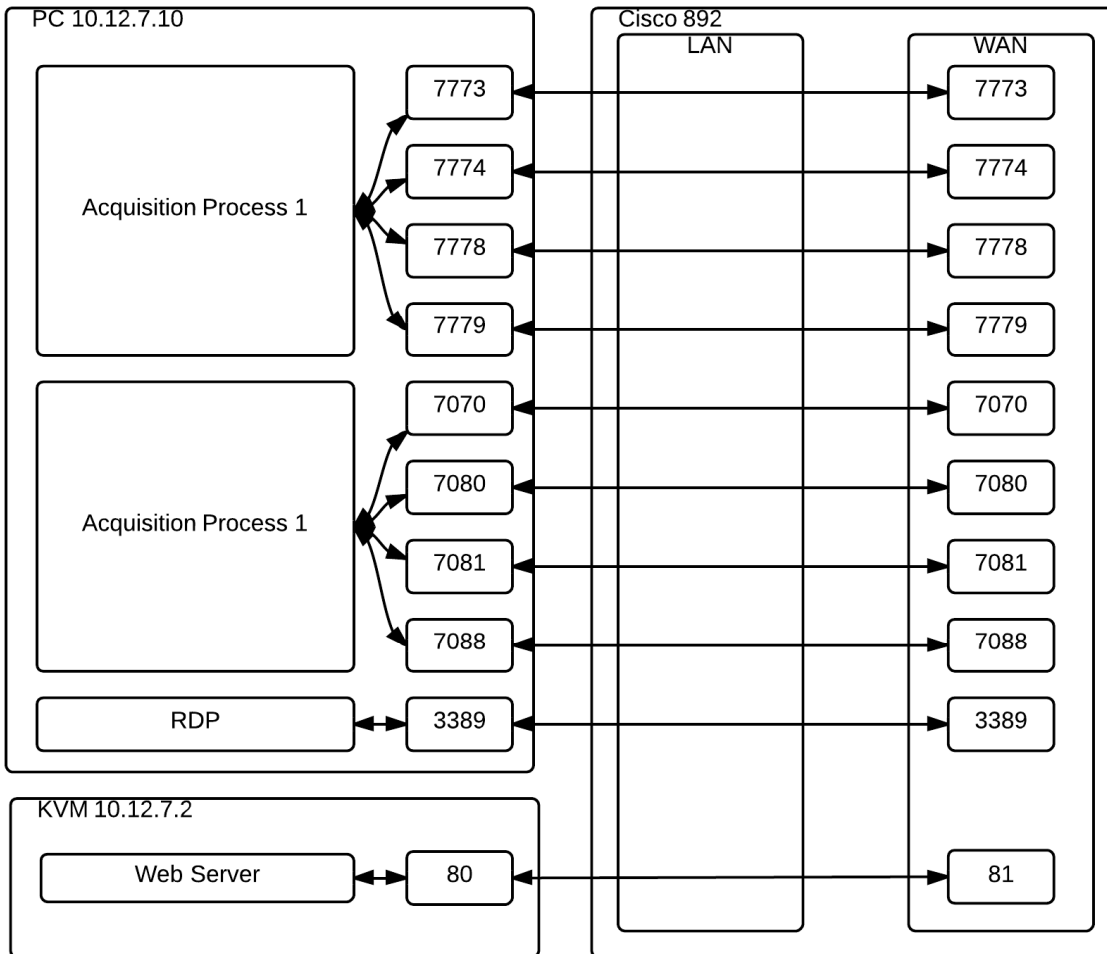
- KVM web interface.
- Terminal Services running on the SRS PC for remote log in.
- Web service running on the SRS PC.
- Status and Control Ports for PetroDAS running on the SRS PC.

Port description

The following ports are used by the PetroDAQ and KVM applications. Using the procedure in this document, the following ports are opened at the Windows Firewall, and are forwarded to the WAN port:

Service	Local TCP/IP Address	TCP Port	Accesible on WAN TCP Port
RDP	10.12.7.10 (PC)	3389	3389
Acquisition process 2	10.12.7.10 (PC)	7070	7070
Acquisition process 2	10.12.7.10 (PC)	7080	7080
Acquisition process 2	10.12.7.10 (PC)	7081	7081
Utility Service	10.12.7.10 (PC)	7088	7088

Acquisition process 1	10.12.7.10 (PC)	7773	7773
Acquisition process 1	10.12.7.10 (PC)	7774	7774
Acquisition process 2	10.12.7.10 (PC)	7778	7778
Acquisition process 1	10.12.7.10 (PC)	7779	7779
KVM Web Interface	10.12.7.2 (KVM)	80	81



Windows Firewall Configuration

1. Login with an account in the Administrators group
2. Go to Control Panel -> System and Security -> Windows Firewall
3. Click on Advanced Settings
4. Click on Inbound Rules, then click on New Rule
5. Add all the ports in the table

Port Forwarding on the Cisco Router

You will need to open the console with Hyperterminal, using the settings:

COM1, 9600 baud, 8 bits, 1 stop bit, No Parity, No Flow Control

Login with the *petrodaq / petrodaq* credentials, then enter the following commands:

```
configure terminal
ip nat inside source static tcp 10.12.7.10 3389 interface GigabitEthernet0 3389
ip nat inside source static tcp 10.12.7.10 7070 interface GigabitEthernet0 7070
ip nat inside source static tcp 10.12.7.10 7080 interface GigabitEthernet0 7080
ip nat inside source static tcp 10.12.7.10 7081 interface GigabitEthernet0 7081
ip nat inside source static tcp 10.12.7.10 7088 interface GigabitEthernet0 7088
ip nat inside source static tcp 10.12.7.10 7773 interface GigabitEthernet0 7773
ip nat inside source static tcp 10.12.7.10 7774 interface GigabitEthernet0 7774
ip nat inside source static tcp 10.12.7.10 7778 interface GigabitEthernet0 7778
ip nat inside source static tcp 10.12.7.10 7779 interface GigabitEthernet0 7779
ip nat inside source static tcp 10.12.7.2 80 interface GigabitEthernet0 81
end
copy running-config startup-config
```

This will redirect all traffic to those ports coming through the WAN port to the PC. I.e. If your Cisco Router was assigned an ip address 192.168.1.121, you should now be able to connect to PetroDAS with Remote on another computer using the TCP/IP Address 192.168.1.121

Dynamic vs Static TCP/IP Addressing

The default configuration shipped with the router uses dynamic TCP/IP Addresses. In certain networks, Static TCP/IP Addresses are used.

To configure the router with an static addressing for the WAN port with the ip address (x.x.x.x), mask (m.m.m.m) and gateway (g.g.g.g), use the following commands

```
configure terminal
interface GigabitEthernet 0
ip address x.x.x.x m.m.m.m
end
ip default-gateway g.g.g.g
end
copy running-config startup-config
```

To revert the router to dynamic TCP/IP addressing, use:

```
configure terminal
no ip default-gateway g.g.g.g
interface GigabitEthernet 0
ip address dhcp
end
copy running-config startup-config
```

PetroDAQ Support

For more information about this Technical Note, please contact our support team.

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