



Setting up Port Forwarding with NuVu Query

Overview

With the advent of Version 2.4 of the NuVu Query suite, a thin-client implementation of all aspects of the various tools has been achieved. This allows remote connections to the Repository and databases with speeds approaching that of a directly connected LAN client.

In conjunction with this thin-client implementation, there is now also a mechanism to allow port forwarding between the client and server parts of the NuVu Query Suite, as well as the physical application database. This effectively allows the administrator to setup just a single port through which all query/database traffic will flow. In addition, the information that flows between the client and server is also compressed (using zip compression) and optionally encrypted with 128 bit encryption. The compression function will further improve the speed of queries executed from remote (WAN) clients.

Common Configuration

Irrespective of Port Forwarding being enabled or not, there are standard settings that are required to be setup in the appropriate ini file (default nuvuquery.ini). The example below will be shown in the illustrations that follow, to make things clearer:

[\[Settings\]](#)

; The IP address or server name of the machine on which the nuvu repository server is running.
; Replace 192.168.1.2 with your appropriate setting.

RepositoryServer=192.168.1.2

; The port on which the NuVu Repository server is listening on for requests.
; Ensure this port is not used by any other process.
; Replace 2131 with your appropriate setting.

RepositoryPort=2131

; The IP address or server name of the machine on which the NuVu Broker server is running.
; Can be the same as the IP address of the RepositoryServer above if both are running on the same server.
; Replace 192.168.1.3 with your appropriate setting.

BrokerServer=192.168.1.3

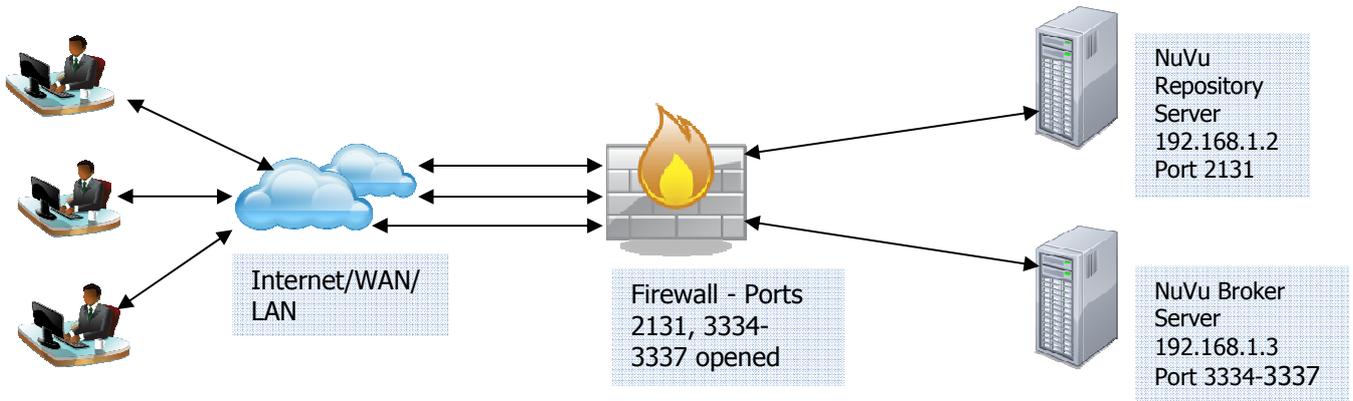
; The port on which the NuVu Broker server is listening on for requests.
; Replace 3334 with your appropriate setting – and ensure that the range of ports starting with this
; value and extending for the 'NumServers' value below are not used by any other process.

BrokerPort=3334

; The number of servers that are setup to be spawned from the NuVu Broker server.
; Replace 3 with your appropriate setting.

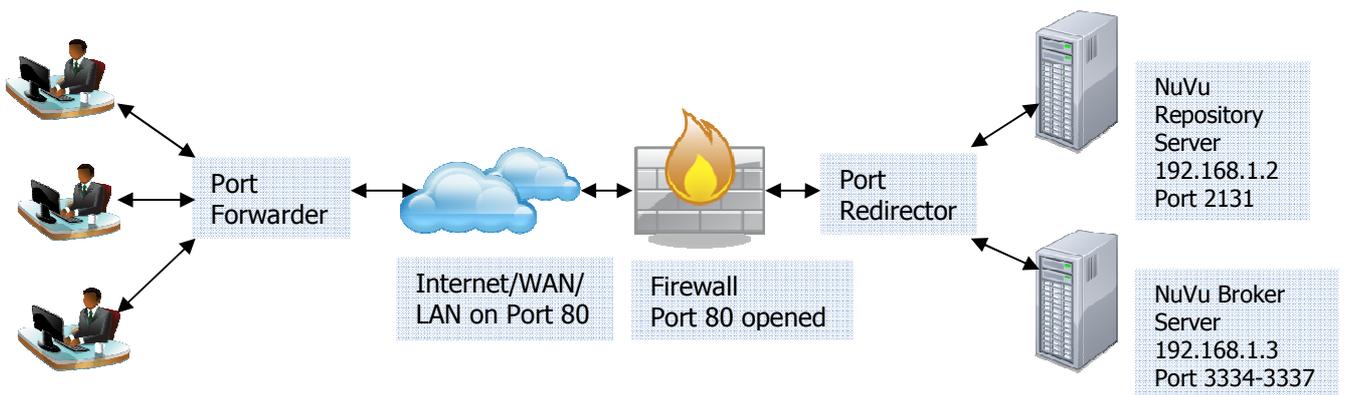
NumServers=3

Without Port Forwarding



- Clients connect directly from actual ports via the cloud, and through the firewall to the respective servers.
- Each port required by the client (for example, one for the NuVu Repository Server, one for the NuVu Broker, and one for each NuVu Server) must be opened through the firewall for the application to function. In the example, this would mean opening port 2131 on 192.168.1.2, and ports 3334, 3335, 3336, 3337 (one broker and 3 servers) on 192.168.1.3.

With Port Forwarding



- Clients connect on "pseudo" ports that the Port Forwarder is listening for.
- The Port Forwarder then directs the messages via the cloud on a single (nominated) port to the Port Redirector. The messages are compressed and optionally encrypted.
- The Port Redirector then examines the message to determine the server to redirect it to.
- The server (eg: NuVu Repository Server, and NuVu Broker Server) then receive the message, process and return the data via the same mechanism.
- The ports shown in the graphic above are explained in the Port Forwarding Configuration section below. Pseudo Port 2132 is redirected to 2131 (to the NuVu Repository Server 192.168.1.2). Pseudo Ports 4334-4337 redirected to 3334-3337 (to the NuVu Broker server 192.168.1.3).

Client-Side Configuration

In order to enable port forwarding, a new section ([Port Forwarding]) needs to be added to the nuvquery.ini file used on the client machines. The various entries are explained below:

[\[Settings\]](#)

; As per the common configuration specified above

[Port Forwarding]

; Set the client to enable the Forwarding of messages

StartForwardingClient=True

; The IP address or server name of the machine on which the Port Forwarding server is installed on.
; This is typically the same as the RepositoryServer machine specified earlier.

ForwardingServer=192.168.1.2

; The port on which the Port Forwarding server is listening on for requests.
; Replace 80 with your appropriate setting. Ensure that this port is not in use by any other process.
; Also ensure your firewall has been changed to allow this port through it.

ForwardingPort=80

; The Broker "Alias" port – this is a pseudo port that the client will communicate on, which will be automatically redirected to
; the actual 'BrokerPort' (3334) once passed through between client and server.
; Replace 4334 with an appropriate value. Also ensure that the range of ports starting with this value, and extending for the
; 'NumServers' value above are not used by any other process on the client machine.

BrokerAlias=4334

; The Repository "Alias" port – this is a pseudo port that the client will communicate on, which will automatically redirected to
; the actual 'RepositoryPort' (3334) once passed through between client and server.
; Replace 2142 with an appropriate value. Also ensure that this port is not in use by any other process on the client machine.

RepositoryAlias=2142

; Set Encryption to True if 128 bit encryption is required, otherwise set it to false. Encryption does impact on performance.

Encryption=True

; Set the level of detail that is output to the Zebedee_server.log and Zebedee_client.log files – default is 1 for basic messages.
; A value of 4 will produce the most verbose details to the logfile, and may be useful in initial debugging of this function.

LogVerbosity=4

Client-Side Configuration (Repository Server ONLY)

In order to enable port forwarding, a new section ([Port Forwarding]) needs to be added to the nuvquery.ini file used on the NuVu Repository Server. The various entries are explained below:

[Settings]

; As per the common configuration specified above

[Port Forwarding]

; Set the client to enable the Forwarding of messages

StartForwardingServer=True

; The IP address or server name of the machine on which the Port Forwarding server is installed on.
; This is typically the same as the RepositoryServer machine specified earlier.

ForwardingServer=192.168.1.2

; The port on which the Port Forwarding server is listening on for requests.
; Replace 80 with your appropriate setting. Ensure that this port is not in use by any other process.
; Also ensure your firewall has been changed to allow this port through it.

ForwardingPort=80

; The Broker "Alias" port – this is a pseudo port that the client will communicate on, which will be automatically redirected to
; the actual 'BrokerPort' (3334) once passed through between client and server.
; Replace 4334 with an appropriate value. Also ensure that the range of ports starting with this value, and extending for the
; 'NumServers' value above are not used by any other process on the client machine.
; This should be the same setting as that on the Client nuvuquery.ini.

BrokerAlias=4334

; The Repository "Alias" port – this is a pseudo port that the client will communicate on, which will automatically redirected to
; the actual 'RepositoryPort' (3334) once passed through between client and server.
; Replace 2142 with an appropriate value. Also ensure that this port is not in use by any other process on the client machine.
; This should be the same setting as that on the Client nuvuquery.ini.

RepositoryAlias=2142

; Set Encryption to True if 128 bit encryption is required, otherwise set it to false. Encryption does impact on performance.
; This should be the same setting as that on the Client nuvuquery.ini.

Encryption=True

; Set the level of detail that is output to the Zebedee_server.log and Zebedee_client.log files – default is 1 for basic messages.
; A value of 4 will produce the most verbose details to the logfile, and may be useful in initial debugging of this function.

LogVerbosity=4