

External Interface Specifications

For Network Disk Recorder

(Panasonic Alarm Protocol)

ND300 / ND300A / ND200 / ND400 series

VER. 1.02

Panasonic System Networks Co.,Ltd.

Revise Record

VER.	Date	Item no.	Comment
1.00	10 Nov. 2006	-	Original Created based on the WJ-ND300 User interface document(Alarm protocol) version 1.24a
1.01	21 Nov.2008	3.2	Add alarm messages(0x60-0x65)
1.02	13 Jan.2010	-	Company name changed

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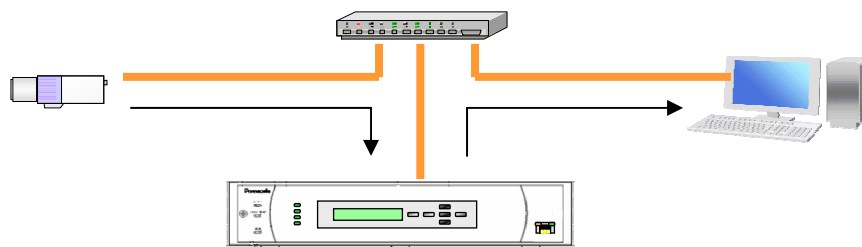
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1. Forward

Alarm notification protocol are utilized from camera through server (NDR) , PC server to client PC. Alarm trigger of terminal alarm, serial alarm, such as VMD activated by cameras are sent to server. Server will address alarm associated actions according to setup to specified client PCs

Alarm message format version 2.0 is upper compatible with conventional version1.0, which was developed for WJ-NT104



Basic function :

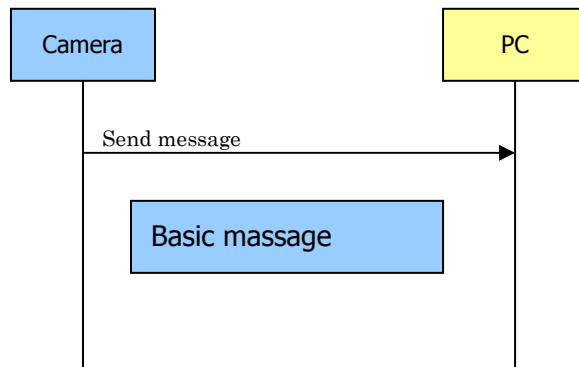
- ① Address alarm activation and error message to specified devices
- ② Add MAC address and time & data information on message data area whenever message data going through devices
- ③ Support MAC address notification cgi command in order to identify associated MAC address device
- ④ Can specify port number for specific message address. It is under study to specify each individual port for all of address
- ⑤ Can specify number of retry

2. Alarm message format (Standard)

2.1. Communication sequence of message format

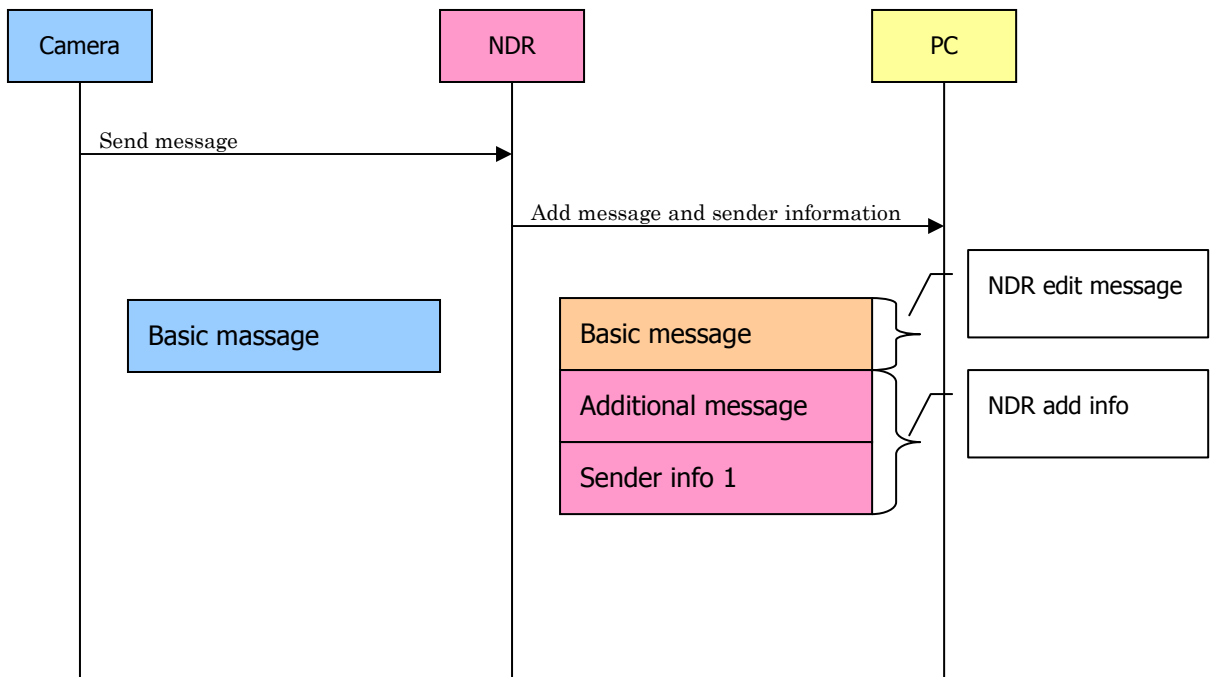
(1) Ver1.0 camera to client PC

Send only basic message e.g. WV-NP472



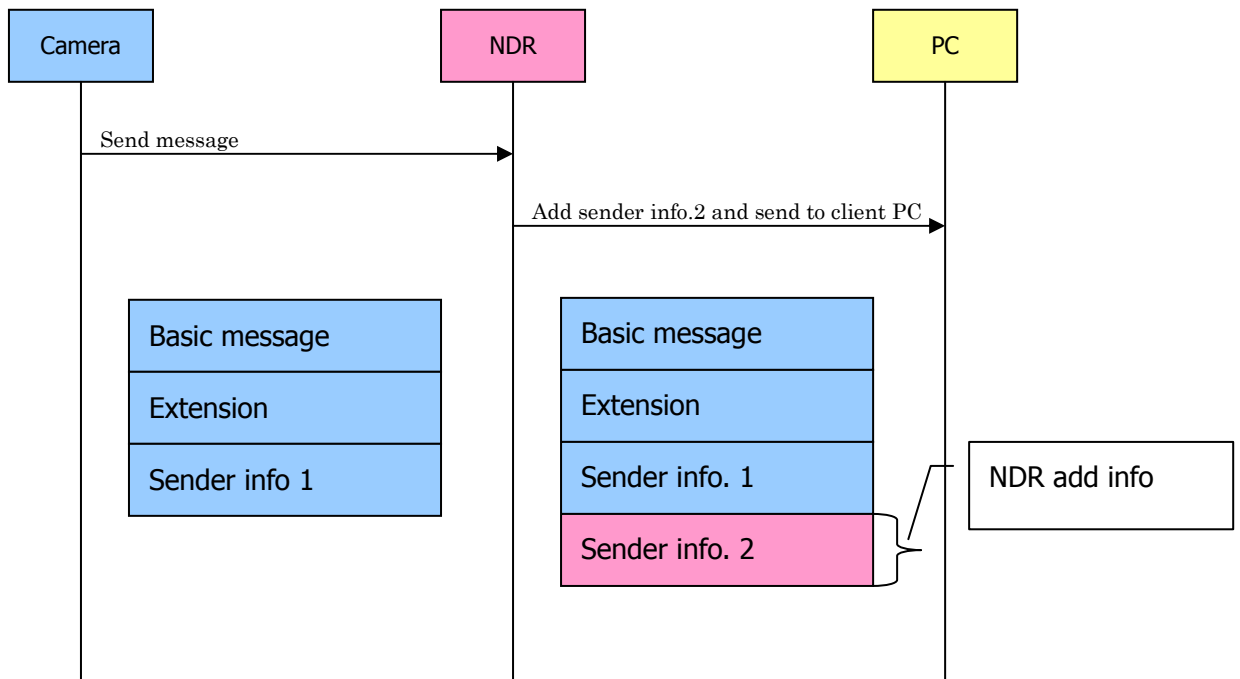
(2) Ver1.0 camera through NDR to client PC

NDR will add message and sender information on message area and forward to client PC



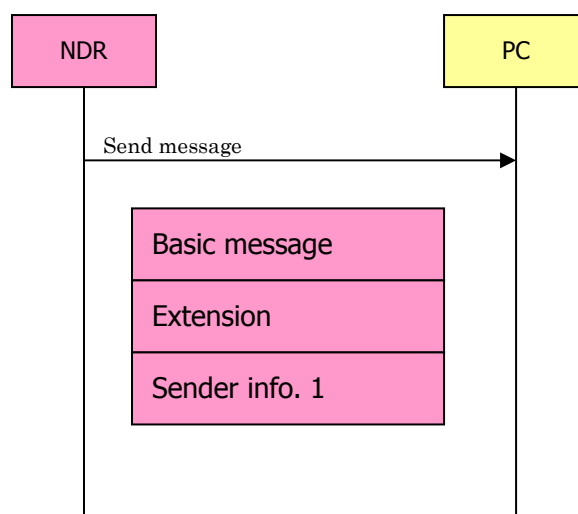
(3) Ver2.0 camera through NDR to client PC

Ver2.0 camera can add extension, sender info. 1 in addition to basic message and send them to NDR. NDR add sender info. 2 along with received message

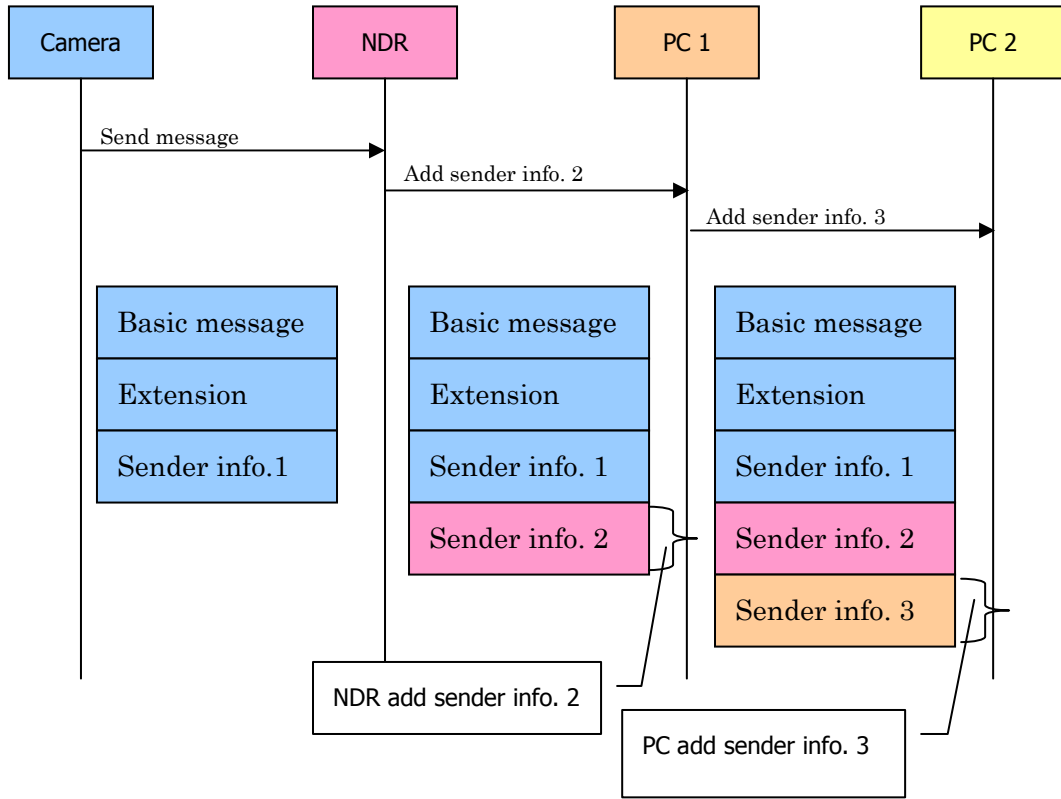


(4) From NDR to client PC

NDR send extension and sender info. 1 to client PC

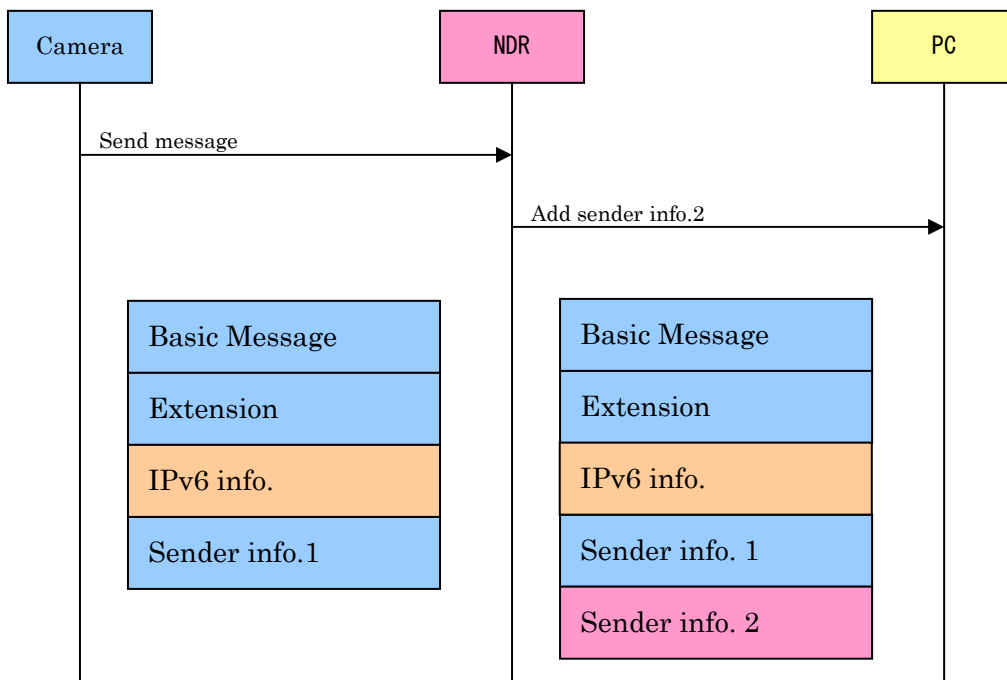


(5) Multiple forwarding



(6) Supported IPv6 Camera through NDR to PC

Supported IPv6 camera (should be ver2.0 format) can add extension, IPv6 info. , and sender info.1 in addition to basic message and send them to NDR. NDR add sender info.2 along with received message.



2.2. Format structure

Data format is defined as described below

Area	Size [Byte]	Content	Ver1.0	Ver2.0
Basic message	20	Ver1.0 Panasonic alarm protocol format	YES	YES
Extension	Scalable	Additional message area other than basic message, such as alarm info, error info. Camera model # and version info included	N/A	YES
Sender info area	24	Sender info, such as MAC address, time & date. Any network devices add their own sender info, on sender info, area every time they receive data	N/A	YES

Identifier

Value	Area	Reference
0x0000	Back up area	Back up area
0x0001	Extension	
0x0002	Sender info.	For IPv4
0x0003	IPv6 info.	For IPv6
0x0004~0xFFFF	Back up area	Back up area

2.2.1. Basic message

Ver1.0: Only Basic message, Ver2.0: Extension and sender info are added after basic message

(Data size : 20 byte)

Item	Size	Value	Detail	
Basic message area	Sender IP address(IPv4)	2Word	IP address Sender IP address (IPv4) NULL for IPv6 devices Byte order is big endian	
	Log #	1 Word	1 ~ 0xFFFF Devices manage the # of this column Count on from 1 to 0xFFFF and go back to 1 again	
	Year (BCD)	1Byte	0x00 ~ 0x99	
	Month (BCD)	1Byte	0x01 ~ 0x12	
	Day (BCD)	1Byte	0x01 ~ 0x31	
	Hour (BCD)	1Byte	0x00 ~ 0x23	
	Minute (BCD)	1Byte	0x00 ~ 0x59	
	Second (BCD)	1Byte	0x00 ~ 0x59	
	Alarm classification	1Byte	0x00 ~ 0xFF	First 3bit: Alarm classification (*1) Last 5bit Alarm terminal # (*2)
	Camera No.	1Byte	0x00 ~ 0xFF	Camera: 0x01 Server: camera # under server control More than 0xFF or no camera #: 0x00
	Padding	1Byte	0x00	0x00
	Extension area flag	1Byte	0x00, 0x80	Highest bit: 0 (0x00) -Ignore extension area Highest bit: 1 (0x80) -Put extension area
	Video saving flag	1Byte	0x00	0x00
	# of picture	1Byte	0x00 ~ 0xFF	0x00 Specified value in camera (1 ~ 40)
Frame rate	1Byte	0x00	0x00	
# of pre pictures	1Byte	0x00 ~ 0xFF	0x00 Specified value (0 ~ 20)	

(* 1) Alarm classification (bit7 ~ 5)

bit7	bit6	bit5	Alarm classification
0	0	0	Notification (Hold to record picture at devices when it receives) (*1)
0	0	1	Camera terminal alarm detection (TRM)
0	1	0	Camera VMD alarm detection
0	1	1	Camera command alarm detection
1	0	0	Sabotage alarm detection
1	0	1	Back up area
1	1	0	Back up area
1	1	1	Back up area (*1)

(*1) Notification may not trigger to start REC. REC is not started at devices receiving "bit_{7,6,5}=0x000" and leave log, show notification on screen
 Detailed information can be identified by message ID in extension area
 If you want device starting REC at alarm activation, back up area can be utilized
 " bit_{7,6,5}=0x111" IF extension area is specified "0x111" , device will start REC as well

(* 2) Alarm terminal # (Alarm classification bit4 ~ 0)

Alarm terminal # "00001" is utilized for devices with only one (1) alarm terminal

Described below is bit assignment chart with more than one (1) alarm terminals.

bit4	bit3	bit2	bit1	bit0	Alarm terminal #
0	0	0	0	0	Back up area
0	0	0	0	1	1ch (Only 1 terminal)
0	0	0	1	0	2ch
0	0	0	1	1	3ch
0	0	1	0	0	4ch
0	0	1	0	1	5ch
0	0	1	1	0	6ch
0	0	1	1	1	7ch
0	1	0	0	0	8ch
0	1	0	0	1	Back up area
⋮					Back up area
1	1	1	1	1	Back up area

<Reference>

If Ver1.0 camera send basic message to NDR, NDR forward to next device (Client PC), Basic message is taken over. Extension area flag must be "0x80" in order to put extension message

Basic message area

Item	Size	Value	Detailed	
Basic message area	Sender IP address(IPv4)	2Word	-	Take over info form camera Byte order is big endien
	Log No.	1Word	1 ~ 0xFFFF	Take over info. from camera
	Year (BCD)	1Byte	-	Take over info. from camera
	Month (BCD)	1Byte	-	
	Day (BCD)	1Byte	-	
	Time (BCD)	1Byte	-	
	Minute (BCD)	1Byte	-	
	Second (BCD)	1Byte	-	
	Alarm classification	1Byte	-	Take over info from camera
	Camera No.	1Byte	-	Take over info from camera
	Padding	1Byte	-	Take over info from camera
	Extension area flag	1Byte	0x80	0x80 (Extension message exist)
	Video saving flag	1Byte	-	Take over info from camera
	# of picture	1Byte	-	Take over info from camera
	Frame rate	1Byte	-	Take over info from camera
	# of pre pictures	1Byte	-	Take over info from camera

2.2.2. Extension area

(Data size : Scalable Up to 512 byte)

Item		Size	Value	Detailed
Extension area	Identifier	2 Bytes	0x0001	Fixed value (Extension area)
	Size	2 Bytes		Size of format including header info Maximum 512 Byte (*1)
	Category	1 Byte	0x00-0xFF	Define product category
	Message ID	1 Byte	0x00-0xFF	Message ID
	Padding	2 Bytes	0x00	
	Expansion area	Scalable	-	Message data Scalable size, maximum 504 (Minimum 4) byte. 4 Byte / unit

(*1) packet must be in 1MTU, which lead to extension are limitation up to 512Byte

2.2.2.1. Category

Category	
0x00	Back up area
0x01	Camera
0x02	Disk recorder
0x03	Encoder
0x04	Alarm BOX
0x05 – 0xFF	Back up area

※ NDR: 0x02

2.2.3. Sender info area

(Data size : 24Byte)

Item	Size	value	Detailed	
Sender info. area	Identifier	2 Bytes	0x0002	Fixed (Sender info area) *1
	Size	2 Bytes	0x18	Data size including header info Fixed value
	MAC address	6 Byte	MAC	MAC address of sender Byte order is big endien
	Camera #	2 Byte	0x0000~ 0xFFFF	Camera: 0x0001 fixed Server: camera # under server control (maximum 65534) No camera #: 0x0000
	Year (BCD)	1 Byte	0x00~0x99	Time info of sender Camera: Camera time info. Server: Server time info
	Month (BCD)	1 Byte	0x01~0x12	
	Day (BCD)	1 Byte	0x01~0x31	
	Hour (BCD)	1 Byte	0x00~0x23	
	Minute (BCD)	1 Byte	0x00~0x59	
	Second (BCD)	1 Byte	0x00~0x59	
	Time zone info ±	1 Byte	0x00, 0x01	
	Time zone hour (BCD)	1 Byte	0x00~0x23	
	Time zone minute (BCD)	1 Byte	0x00~0x59	
	Day light saving info	1 Byte	0x00, 0x01	
Padding	2 Byte	0x00		

2.2.4. IPv6 address info area

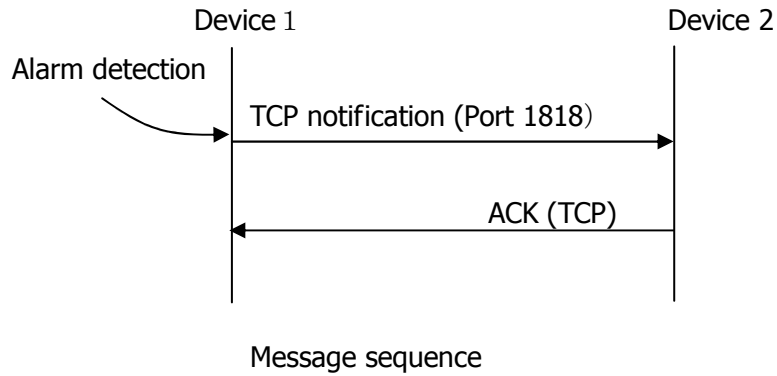
(Data size : Scalable Up to 512 byte)

Item		Size	Value	Detailed
IPv6 address info area	Identifier	2 Bytes	0x0003	Fixed value (Extension area)
	Size	2 Bytes		Size of format including header info Maximum 512 Byte (*1)
	Category	1 Byte	0x00-0xFF	Define product category
	Message ID	1 Byte	0xFF	Fixed value
	Padding	2 Bytes	0x00	
	IPv6 address	Scalable	Binary	In case of multiple address, describe IPv6 address by turns Byte order is big endian

2.2.5. Detailed message protocol

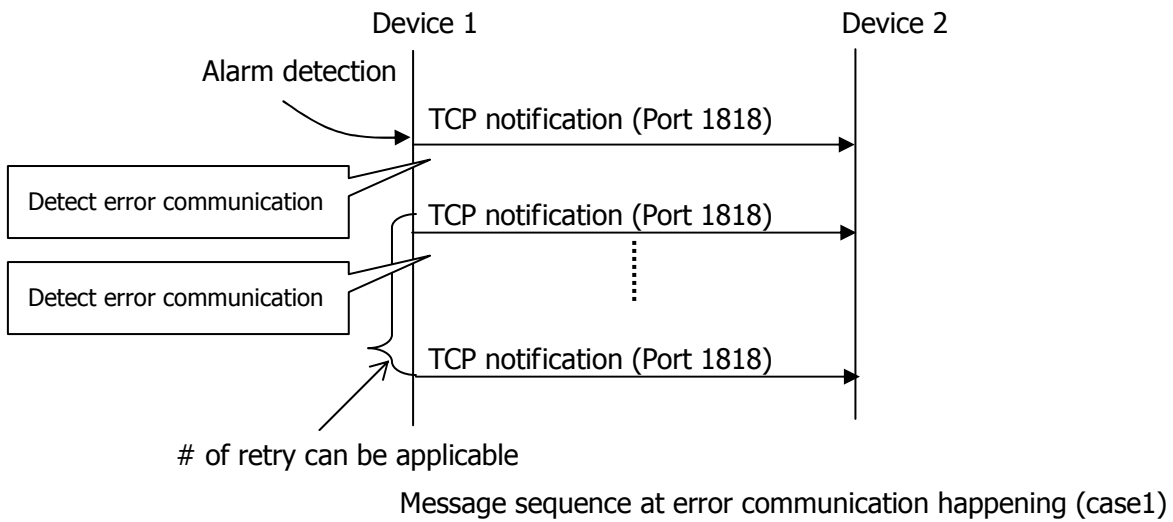
Retry interval is 2 seconds # of retry are implemented by application layer.

[Normal sequence]



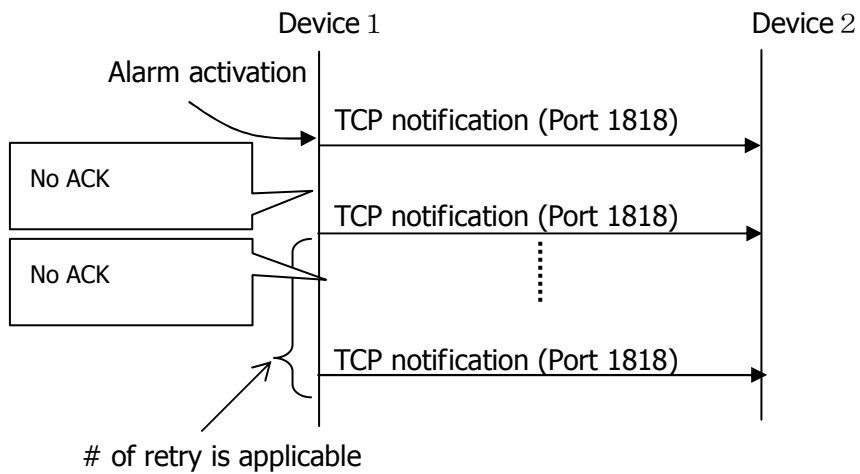
[Recovery process from error communication]

(1) Start to retry TCP notification against error communication



(2) Start TCP notification retry when ACK error from device 2 is coming

NOTE: If send data is successfully transferred to TCP protocol stuck, device recognize communication is successfully completed and does not start retry



Message sequence at error communication happening (case 2)

3. Alarm message format (NDR specification)

3.1. Message come from camera

3.1.1. Panasonic alarm protocol message is received from camera Ver1.0

Reference: Receive format " 2.2.1 basic message area" WV-NP472, WV-NS320 and WV-NM100 support this protocol (Ver1.0) Ver1.0 is utilized for alarm notification, Ver2.0 is utilized for error notification regarding WV-NP240/244, WV-NP1000/1004, or later products. Ver1.0 message is converted to Verr2.0 as below

Basic message area

Item	Size	Value	Detailed	
Basic message area	Sender IP address (IPv4)	2 Words	-	Take over camera info Byte order is big endien
	Log No.	1 Word	1 ~ 0xFFFF	Take over camera info
	Year (BCD)	1 Byte	-	Take over camera info
	Month (BCD)	1 Byte	-	
	Day (BCD)	1 Byte	-	
	Hour (BCD)	1 Byte	-	
	Minute (BCD)	1 Byte	-	
	Second (BCD)	1 Byte	-	
	Alarm classification	1 Byte	-	
	Camera #	1 Byte	-	Take over camera info
	Padding	1 Byte	-	Take over camera info
	Extension area flag	1 Byte	0x80	0x80 (Extension area exist)
	Video saving flag	1 Byte	-	Take over camera info
	# of picture	1 Byte	-	Take over camera info
	Frame rate	1 Byte	-	Take over camera info
# of pre pictures	1 Byte	-	Take over camera info	

Extension area

Item	Size	Value	Detailed	
Extension area	Identifier	2 Bytes	0x0001	Fixed value
	Size	2 Bytes	0x000C	12Byte
	Category	1 Byte	0x02	Disk recorder
	Message ID	1 Byte	0x00	Message generated from camera
	Padding	2 Bytes	0x00	
	Back up area	4 Bytes	0x00	

Sender info area

Item	Size	value	Detailed	
Sender info area	Identifier	2 Bytes	0x0002	Fixed value *1
	Size	2 Bytes	0x18	Size of sender info including header communication, fixed value
	MAC address	6 Bytes	MAC	NDR MAC address (Client PC port) Byte order is big endien
	Camera #	2 Bytes	0x0000 ~ 0xFFFF	Camera # under NDR control (maximum 65534)
	Year (BCD)	1 Byte	0x00 ~ 0x99	NDR time & date info
	Month (BCD)	1 Byte	0x01 ~ 0x12	
	Day (BCD)	1 Byte	0x01 ~ 0x31	
	Hour (BCD)	1 Byte	0x00 ~ 0x23	
	Minute (BCD)	1 Byte	0x00 ~ 0x59	
	Second (BCD)	1 Byte	0x00 ~ 0x59	
	Time zone info ±	1 Byte	0x00, 0x01	NDR Time zone info ±: 0x00 - minus value 0x01 - plus value
	Time zone hour (BCD)	1 Byte	0x00 ~ 0x23	
	Time zone minute (BCD)	1 Byte	0x00 ~ 0x59	
	Day light saving info	1 Byte	0x00, 0x01	Time zone info hour and minute: (e.g. : 09:00 in JPN) Day light saving: 0x00 - Winter time 0x01 - Summer time
	Padding	2 Bytes	0x00	Other than above: 0x00

3.1.2. Panasonic alarm protocol message is received from camera Ver2.0

NDR put its own information as sender info on the last tail of message and forward next designated address

Sender info (NDR)

Put additional its own info on the last tail

Item	Size	Value	Detailed	
Sender info area	Identifier	2 Bytes	0x0002	Fixed value (sender info area) *1
	Size	2 Bytes	0x18	Size of sender info including header communication, fixed value
	MAC address	6 Bytes	MAC	NDR MAC address (Client PC port) Byte order is big endien
	Camera #	2 Bytes	0x0000 ~ 0xFFFF	Camera # under NDR control (maximum 65534)
	Year (BCD)	1 Byte	0x00 ~ 0x99	NDR time & date info
	Month (BCD)	1 Byte	0x01 ~ 0x12	
	Day (BCD)	1 Byte	0x01 ~ 0x31	
	Hour (BCD)	1 Byte	0x00 ~ 0x23	
	Minute (BCD)	1 Byte	0x00 ~ 0x59	
	Second (BCD)	1 Byte	0x00 ~ 0x59	
	Time zone info ±	1 Byte	0x00, 0x01	
	Time zone hour (BCD)	1 Byte	0x00 ~ 0x23	
	Time zone minute (BCD)	1 Byte	0x00 ~ 0x59	
	Day light saving info	1 Byte	0x00, 0x01	
Padding	2 Bytes	0x00		

3.2. NDR generate additional message

NDR generate alarm/ error info and send designated devices (PC)

Basic message area

Item	Size	Value	Detailed	
Basic message area	Sender IP address(IPv4)	2 Words	IP address	IP address of NDR (IPv4) NULL for IPv6 devices Byte order is big endian
	Log #	1 Word	1 ~ 0xFFFF	Devices manage the # of this column Count on from 1 to 0xFFFF and go back to 1 again
	Year (BCD)	1 Byte	0x00 ~ 0x99	Time & date info of NDR
	Month (BCD)	1 Byte	0x01 ~ 0x12	
	Day (BCD)	1 Byte	0x01 ~ 0x31	
	Hour (BCD)	1 Byte	0x00 ~ 0x23	
	Minute (BCD)	1 Byte	0x00 ~ 0x59	
	Second (BCD)	1 Byte	0x00 ~ 0x59	
	Alarm classification	1 Byte	0x00 ~ 0xFF	
	Camera #	1 Byte	0x00 ~ 0xFF	Camera # under NDR control No camera #: 0x00 Camera # should be 0x00 at emergency REC trigger ID 0x04 ON in extension area
	Padding	1 Byte	0x00	0x00
	Extension message flag	1 Byte	0x80	Fixed value (Extension)
	Video saving flag	1 Byte	0x00	0x00
	# of picture	1 Byte	0x00	0x00
	Frame rate	1 Byte	0x00	0x00
# of pre pictures	1 Byte	0x00 ~ 0xFF	0x00	

Extension area

Item	Size	Value	Detailed	
Extension area	Identifier	2 Bytes	0x0001	Fixed value (Extension area is existing)
	Size	2 Bytes	Variable	—
	Extension area	2 Bytes	02**	Product category
		2 Bytes	0x0000	Padding
		Scalable	ASCII	See attached below

Extension

No	Message	Extension			補 足
		Category	Message ID	Message (ASCII)	
1	Message from camera	0x02	0x00	(0x00 を 4Byte)	Message is scalable. NULL is the last value After NULL value, extension area should be filled out NULL until 4 byte x n
2	Terminal (NDR)	0x02	0x01	TERMINAL ALARM **ch	
3	Serial	0x02	0x02	COMMAND ALARM **ch	
	Site Alarm	0x02	0x03	SITE ALARM **ch	
4	Emergency REC	0x02	0x04	Refer to *1	
5	HDD capacity remains warning	0x02	0x0F	HDD CAPACITY REMAINS **%	
	NORMAL capacity remains warning	0x02	0x10	NORMAL HDD FULL	
6	EVENT capacity remains warning	0x02	0x11	EVENT-HDD CAPACITY REMAINS **%	
		0x02	0x12	EVENT-HDD FULL	
7	COPY area capacity remains warning	0x02	0x13	COPY-HDD CAPACITY REMAINS **%	
		0x02	0x14	COPY-HDD FULL	
8	COPY error	0x02	0x15	NO DATA COPY	
9	Alter detection	0x02	0x16	ALTERED	
10	HDD exchange warning	0x02	0x18	HDDy EXCHANGE WARNING **%	
11	HDD smart warning	0x02	0x20	HDDx-y DISK WARNING	
12	HDD hour meter warning	0x02	0x21	HDD HOUR METER WARNING	
13	HDD auto remove	0x02	0x22	HDDx-y LOGICALLY REMOVED	
14	RAID5 1 down	0x02	0x23	HDDx-y RAID5 1 DOWN	
15	RAID5 2 down	0x02	0x24	HDDx RAID5 2 DOWN	

16	HDD RAID5 recovery failure	0x02	0x25	RAID5 RECOVERY FAILURE
	RAID Board fault	0x02	0x26	RAID BOARD FAILURE
17	Mirror recovery failure	0x02	0x28	MIRROR RECOVERY FAILURE
18	Format failure	0x02	0x29	HDDy FORMAT ERROR
19	Mirror area format failure	0x02	0x2A	MIRROR FORMAT ERROR
20	HDD eject warning	0x02	0x2C	HDDy SWAP WARNING ***
21	Power loss	0x02	0x30	POWER LOSS
22	Power recovered	0x02	0x31	POWER RECOVERD
23	FAN error	0x02	0x32	FAN ERROR x-y
24	Thermal error	0x02	0x33	THERMAL ERROR x-y
25	Video Loss	0x02	0x34	VIDEO-LOSS **
26	Video Loss recovered	0x02	0x35	CAM ** VIDEO RECOVERED
27	HDD inserting and removing warning	0x02	0x36	HDDy ON/OFF WARNING
28	Camera communication error	0x02	0x40	CAM xx COMMUNICATION ERROR
29	Camera communication recovered	0x02	0x41	CAM xx COMMUNICATION RECOVERD
30	Portx NW link error	0x02	0x42	PORTx NETWORK LINK ERROR
31	DHCP error	0x02	0x43	PORTx DHCP ERROR
32	Audio communication error	0x02	0x44	CAM xx COMMUNICATION ERROR(AUDIO)
33	Audio communication recovered	0x02	0x45	CAM xx COMMUNICATION RECOVERD(AUDIO)
34	SD error	0x02	0x50	CAM ** SD ERR
35	SD write error Start request error	0x02	0x51	CAM ** SD START ERR
36	SD write end error End request error	0x02	0x52	CAM ** SD END ERR
37	SD memory data Get list error	0x02	0x53	CAM ** GET LIST ERR
38	Get image error	0x02	0x54	CAM ** GET IMG ERR
39	Delete image error	0x02	0x55	CAM ** DEL IMG ERR
40	SD memory REC start	0x02	0x56	SD MEMORY REC START

41	SLEEP *2	0x02	0xE0	SLEEP	
42	Alarm suspend ON	0x02	0xF0	ALARM SUSPEND ON	
43	Alarm suspend OFF	0x02	0xF1	ALARM SUSPEND OFF	
44	Format error for RAID5	0x02	0x60	Main Unit : MAIN RAID5 FORMAT ERROR Extension : EXTx RAID5 FORMAT ERROR	ND400 V1.04 or later
45	RAID6 1 down	0x02	0x61	Main Unit : MAIN RAID6 1 DOWN Extension : EXTx RAID6 1 DOWN	
46	RAID6 2 down	0x02	0x62	Main Unit : MAIN RAID6 2 DOWN Extension : EXTx RAID6 2 DOWN	
47	RAID6 3 down	0x02	0x63	Main Unit : MAIN RAID6 3 DOWN Extension : EXTx RAID6 3 DOWN	
48	HDD RAID6 recovery failure	0x02	0x64	Main Unit : MAIN RAID6 RECOVERY FAILURE Extension : EXTx RAID6 RECOVERY FAILURE	
49	Format error for RAID6	0x02	0x65	Main Unit : MAIN RAID6 FORMAT ERROR Extension : EXTx RAID6 FORMAT ERROR	

*1 Camera CH at emergency REC trigger ON

Camera # notification specified in recorder at emergency REC on

	Data	Reference
Specified camera as below Camera 1, Camera 10, Camera 20, Camera 30	32 1	
	0010 0000 0000 1000 0000 0010 0000 0001	Binary
	2 0 0 8 0 2 0 1	Hex
ASCII	32H 30H 30H 38H 30H 32H 30H 31H	ASCII

*2 Definition of "sleep"

Sleep is under condition SD backup activating or HDD power off. Device can not send live image and REC image though PC access it

3.3. Reference

3.3.1. Extension area of camera category

WV-NP1000/ NP244/NW484/NF284/NS202(A)/NS950/NW960/NF302/NP304
 extension area (As of 28/Oct/2008)

Item	Size	Value	Detailed	
Extension area message	Identifier	2Byte	0x0001	Fixed value (extension area)
	Size	2Byte	Variable	—
	Extension area	2Byte	01**	Camera model info
		2Byte	0x0000	Padding
		Scalable	ASCII	See attached below

Extension area

No	Message name	Extension area			Reference
		Category	Message ID	Message (ASCII)	
1	SD-MEMORY FULL	0x01	0x01	SD-MEMORY FULL	NULL is the last tail Alarm activation of basic message area: 000*****B and device does not start REC
2	SD-MEMORY NOT DETECTED	0x01	0x02	SD-MEMORY NOT DETECTED	
3	SD-MEMORY CAPACITY	0x01	0x03	SD-MEMORY CAPACITY **%	
4	SD-MEMORY WRITE ERROR	0x01	0x04	SD-MEMORY WRITE ERROR	

3.3.2. Extension area of encoder category

WJ-NT304/WJ-NT314 extension area (As of 28/Oct/2008)

Item	Size	Value	Detailed	
Extension area message	Identifier	2Byte	0x0001	Fixed value (extension area)
	Size	2Byte	Variable	—
	Extension area	2Byte	03**	encoder model info
		2Byte	0x0000	Padding
		Scalable	ASCII	See attached below

Extension area

No	Message name	Extension area			Reference	Alarm classification (bit7~5)
		Category	Message ID	Message (ASCII)		
1	SD-MEMORY FULL	0x03	0x01	SD-MEMORY FULL	NULL is the last tail Alarm activation of basic message area: 000*****B and device does not start REC	000
2	SD-MEMORY NOT DETECTED	0x03	0x02	SD-MEMORY NOT DETECTED		
3	SD-MEMORY CAPACITY	0x03	0x03	SD-MEMORY CAPACITY **%		
4	SD-MEMORY WRITE ERROR	0x01	0x04	SD-MEMORY WRITE ERROR		
5	VIDEO LOSS	0x03	0x10	VIDEO LOSS **ch		
6	VIDEO LOSS RECOVERD	0x03	0x11	VIDEO RECOVER **ch		
7	TERMINAL ALARM	0x03	0x20	TERMINAL ALARM **ch		111
8	CAMERA SITE ALARM	0x03	0x21	CAMERA SITE ALARM **ch		
9	COMMAND ALARM	0x03	0x22	COMMAND ALARM **ch		

4. Get MAC address

MAC address is utilized to identify who send message to receiver devices including PC (MAC address is written in sender info area)

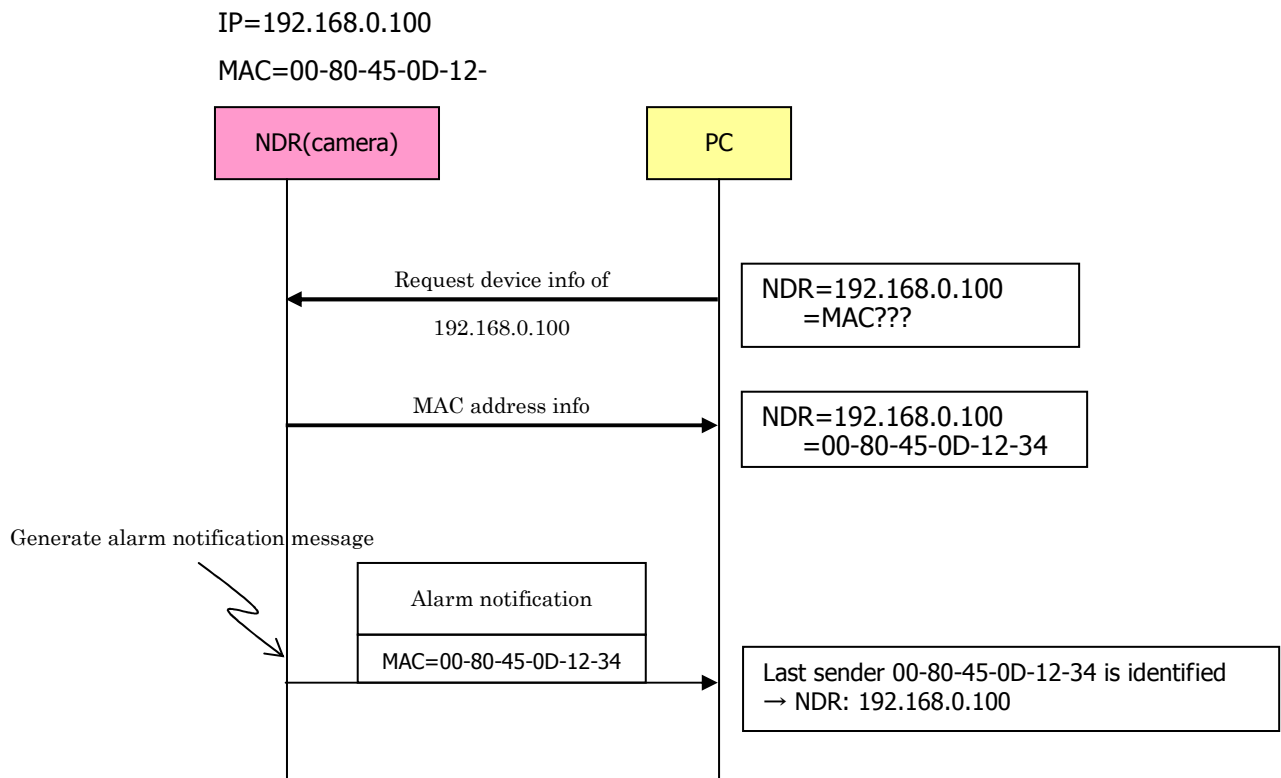
It is necessary to have a mapping table of MAC address and associated IP address (or FQDN) in order to identify sender device

Described below is CGI command set to request device information of message sender from receiver device

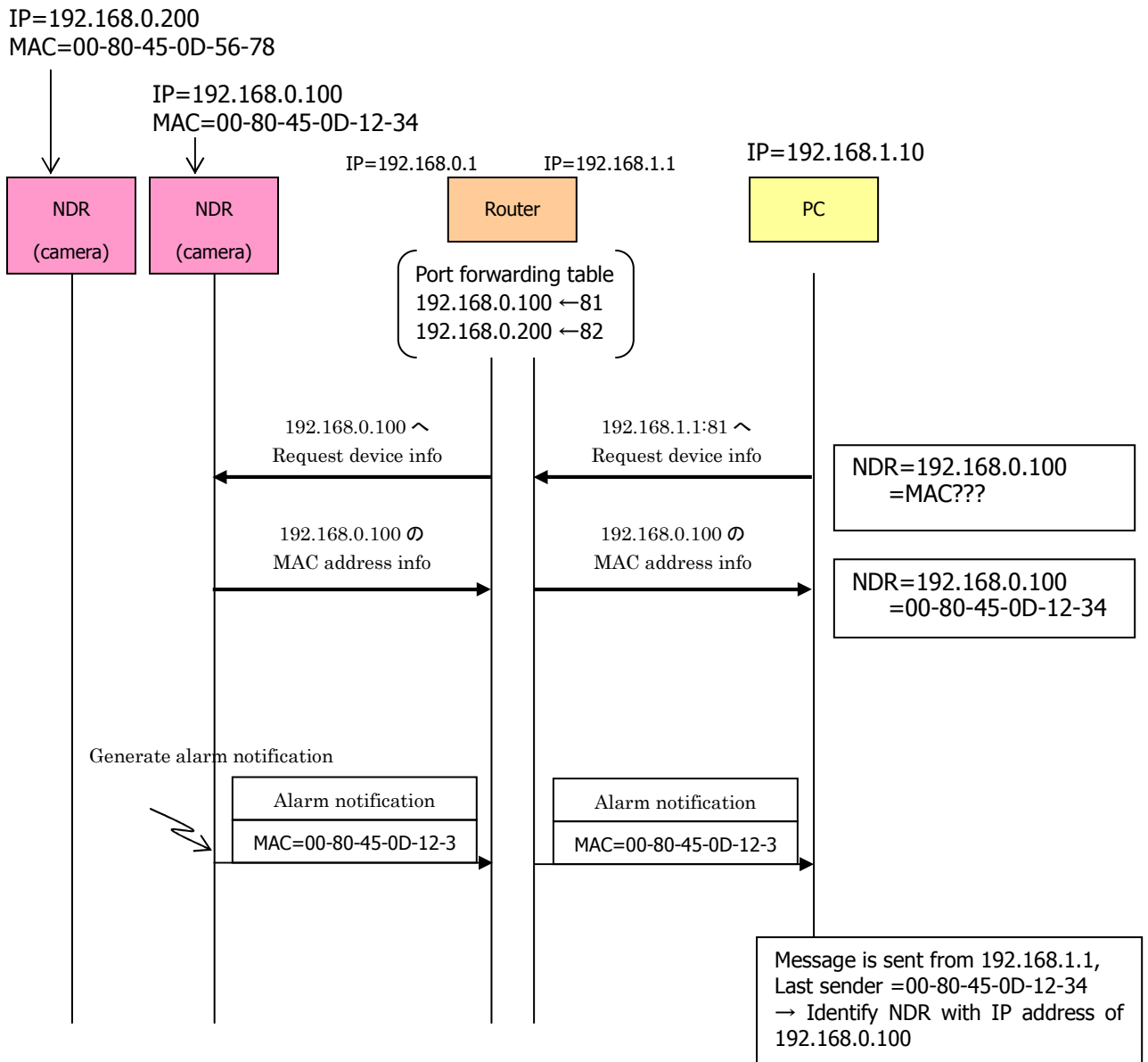
Request device info	Detailed
cgi-bin/getinfo	Reply "productinfo.html" for this command <HTML> MAC=00-80-45-0D-12-34 : MAC address VERSION=V1.00 : Software version NAME=WJ-ND300 : model # </HTML> Can put additional info along with above info

Application example

- (1) NDR (camera) and PC are connected under same subnet



(2) NDR (camera) and PC are specified in different subnet. Router conduct route forwarding for multiple NDRs



(3) NDR is connected between camera and PC

