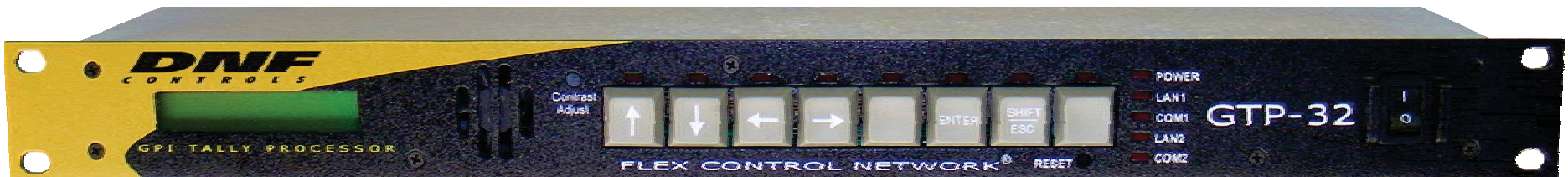


CORE GTP-32 CONCEPTS

***When you understand how the
GTP-32 “thinks” and “behaves”,
it will be easier to make it
do what you want!***

**The GTP-32 Control Processor
is a member of the
Flex Control Network®
product line**



GTP-32 CONTROL PROCESSOR



Supports:

- 32- GPI
- 32- GPO
- 4 Serial Ports
- 2 Ethernet Ports

Hardware:

GTP-32 = DC21

GTP-32 ≠ DC20

DC20 has no GPI or GPO

Production
Control
System

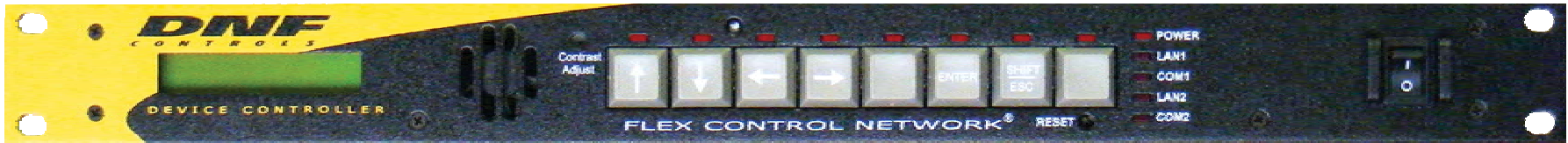
Automation/
Automation
Backup

Monitor Wall
Tally Control
System

Cisco DCM
Control

Manual /
Override
Control System

GTP-32 CONTROL PROCESSOR



Ethernet based platform for Control & Monitor

Bypass /
Live Insert
Control System

Newsroom
MOS
Control System

On-Air
Tally Control
System

SCTE Control
Switching and
Distribution

“Monitor &
Control
whatever”
Control System

GTP-32 Control Processors are found in:

- Cable Network Operations Centers
- Broadcast Operations Centers
- Syndication/ Distribution Centers
- Single TV Station Master Control
- Multi-Station Hub Master Control
- Single Production Control Room and Studio
- Facility-wide Production Control Rooms and Studios
- Production Facilities that span buildings, cities, and countries
- Live / Sports / Remote Production
- Arenas, Stadiums, Race Tracks
- Mobile Production Trucks
- QC Rooms
- Post-Production, Digital Intermediate

GTP-32 Control Processor

A Problem Solver For:

- Time triggered events
- Time delayed events
- Monitor Wall text and tally control
- On-Air tallies
- EAS crawls and audio-overs
- VTR / DDR / Video Server play out control and monitoring
- GPI routing
- Router control and monitoring
- Graphics control
- SCTE command generation
- SCTE A/B Switch
- SNMP message generation
- Camera tally control, local and remote
- Video A/B Switch control and monitoring, local and remote

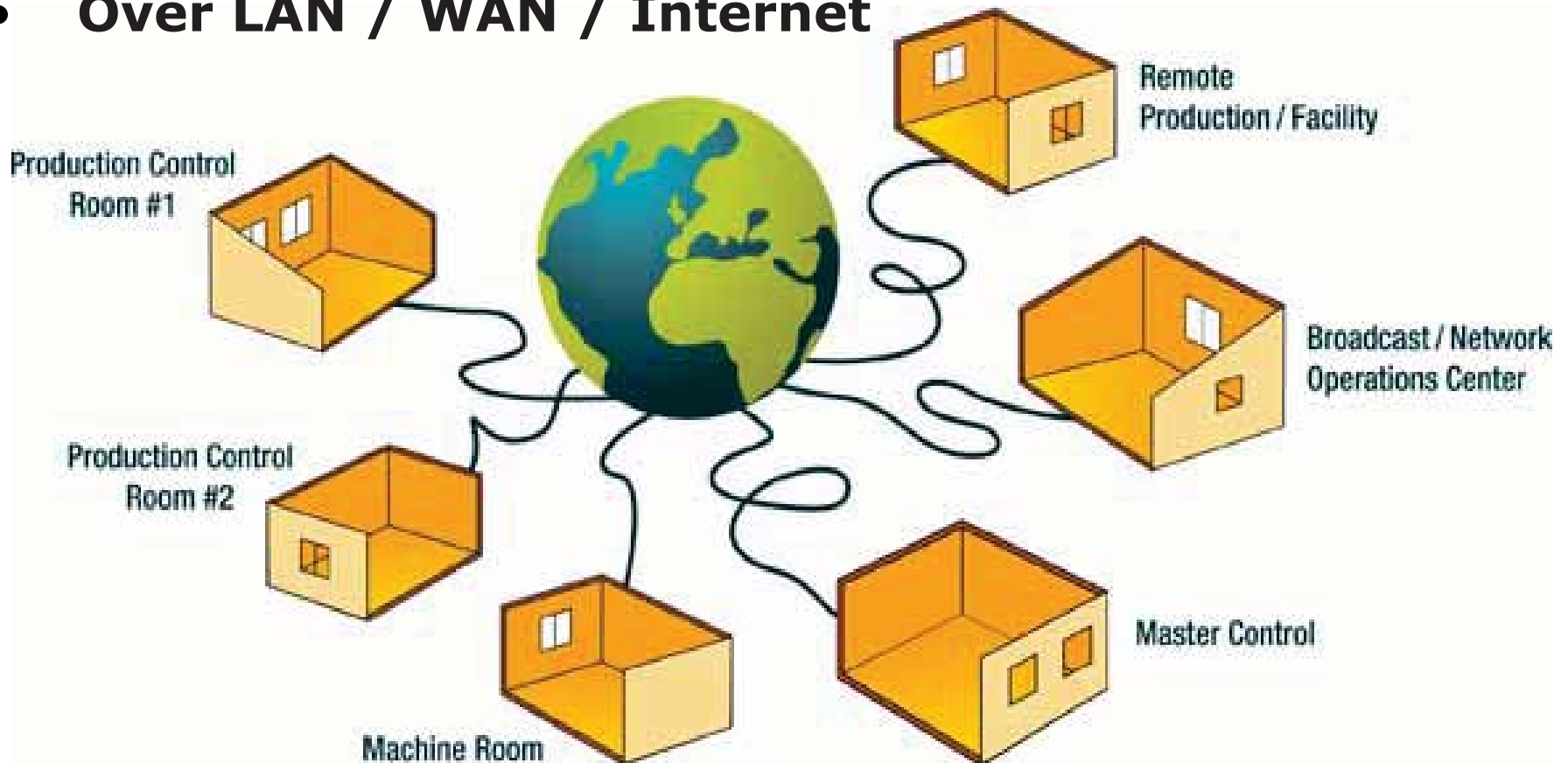


The GTP-32 gives you the tools to easily solve control and interface problems

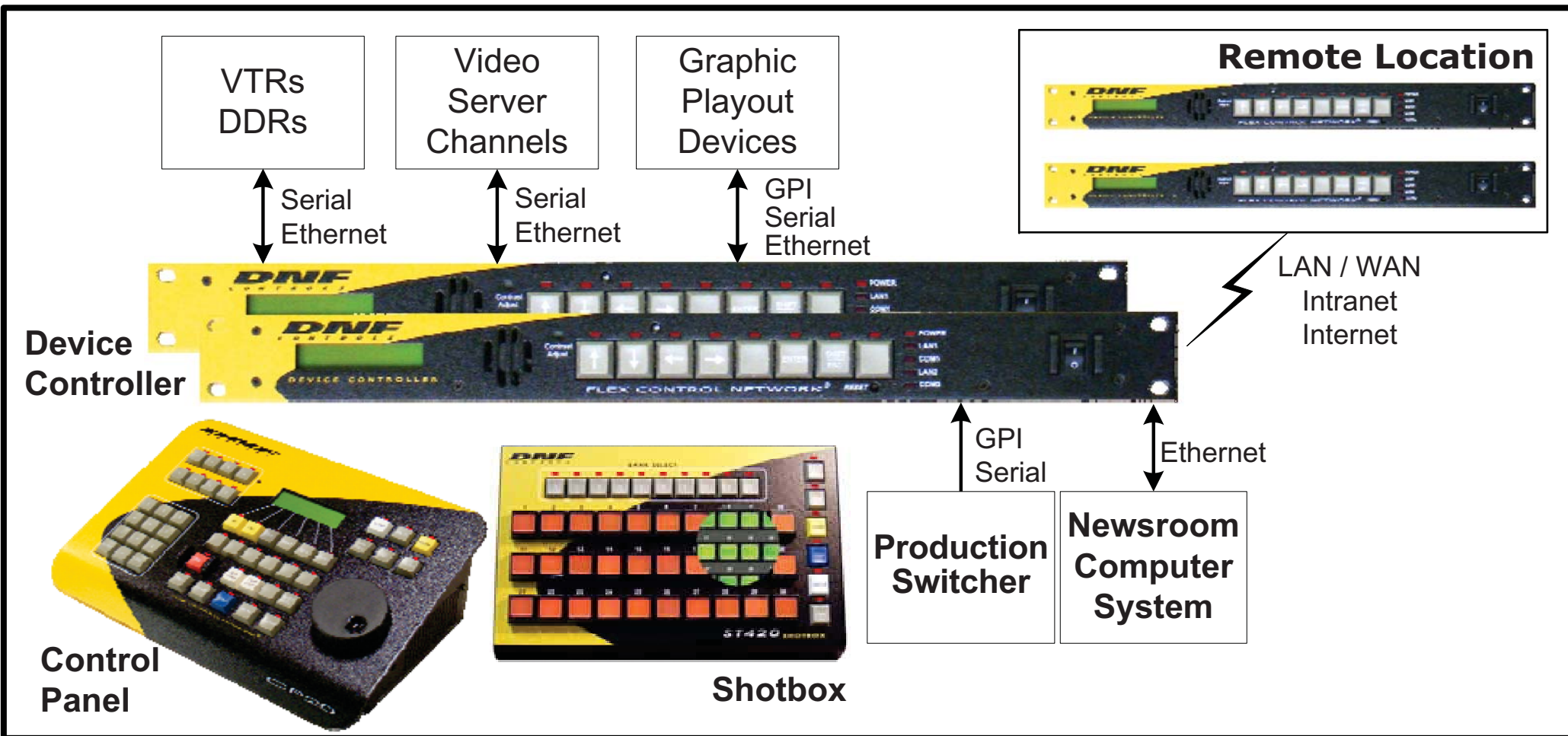
The GTP-32 makes it easy to respond to Operations' requests and changes.

What used to take days and weeks can now be done in hours.

- **Ethernet Based Control Platform**
- **Control any Device From any Location**
- **Share Tally & Status between Locations**
- **Over LAN / WAN / Internet**



Used for Production Control





Used in Master Control

**Automation
Backup**

**Emergency Bypass /
Live Insert Control**

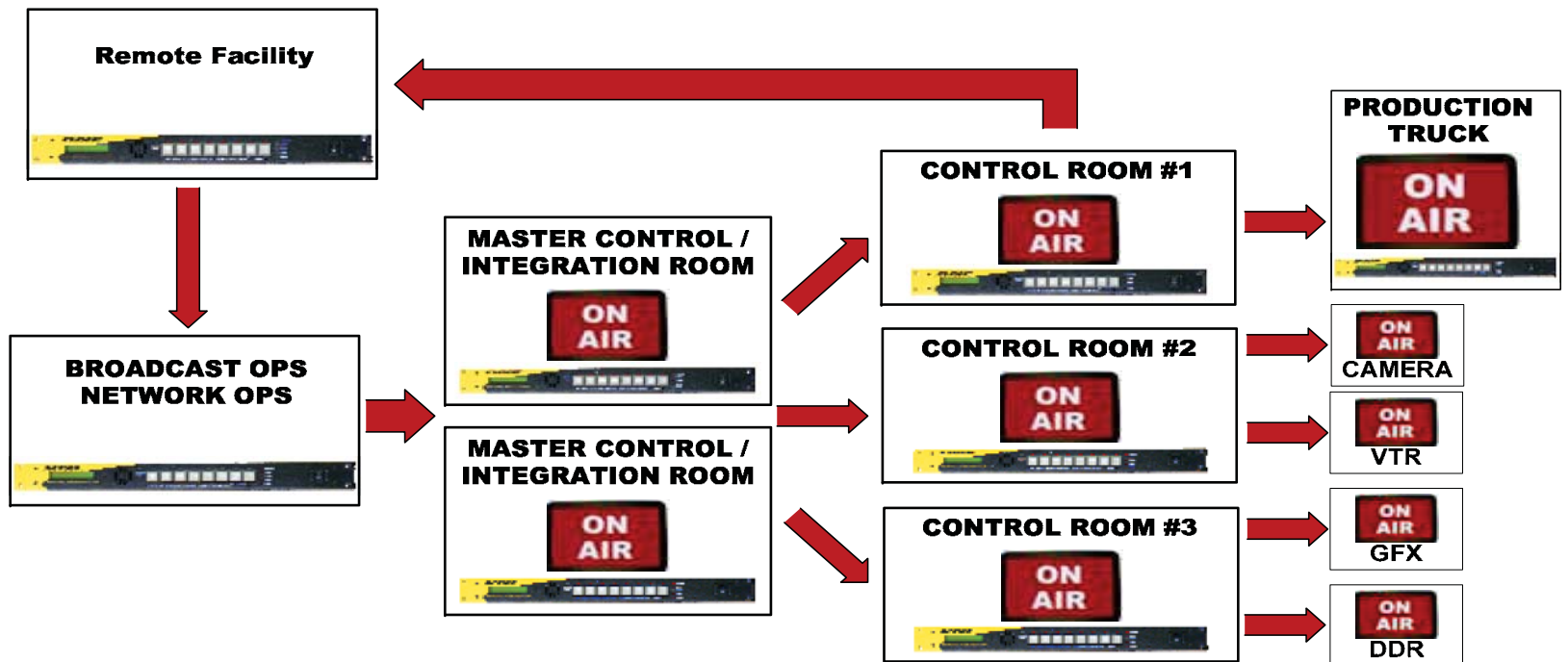
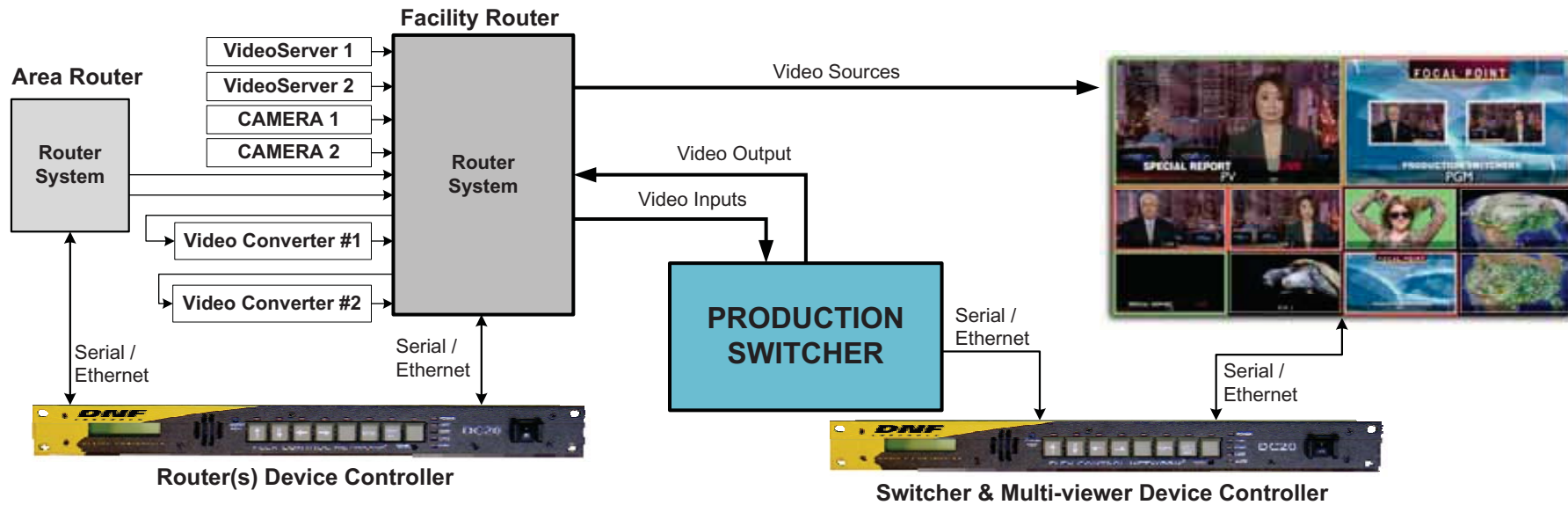
USP-16



**LAN
WAN
Internet**

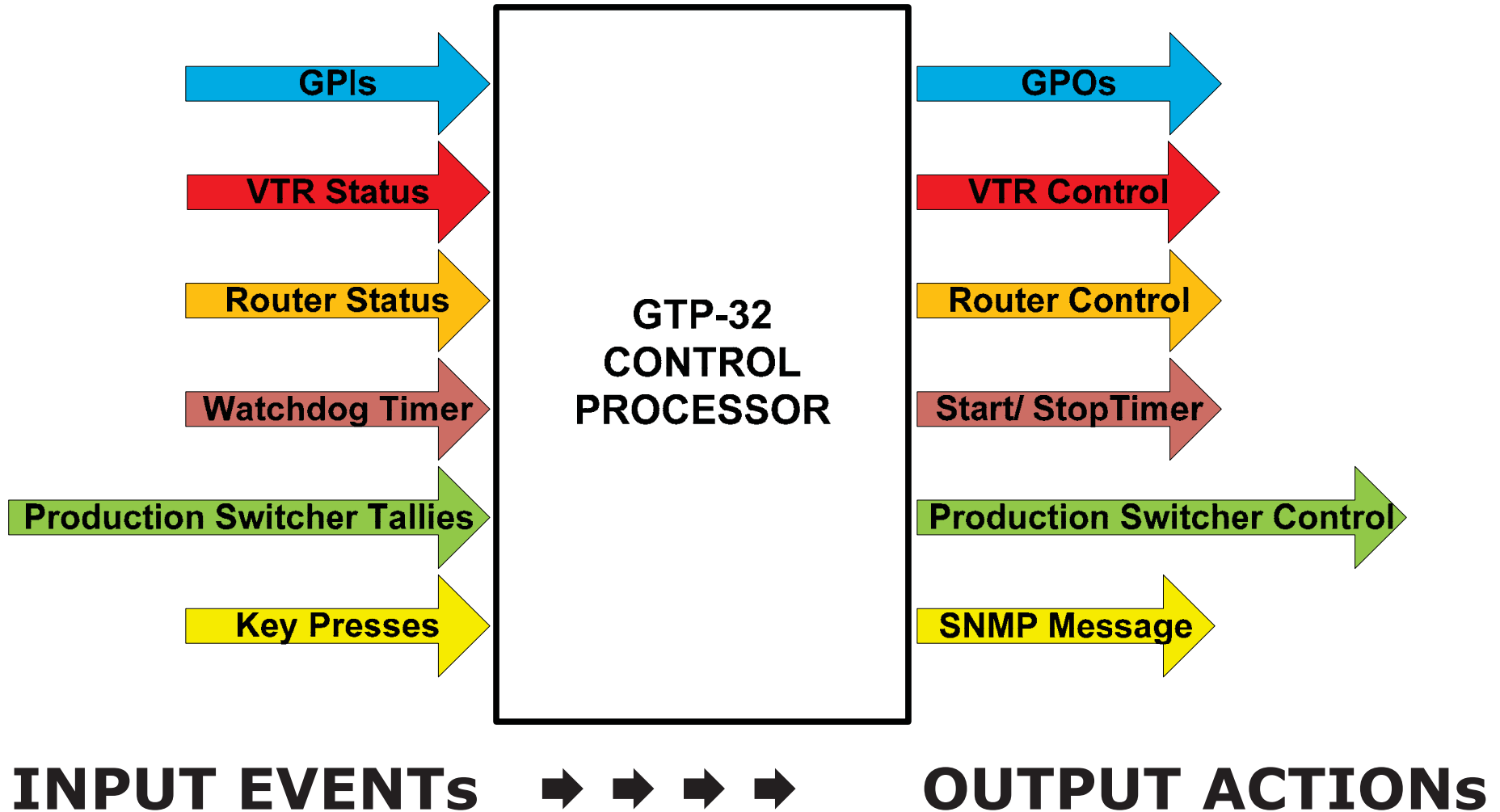


Used for On-Air Tally Control

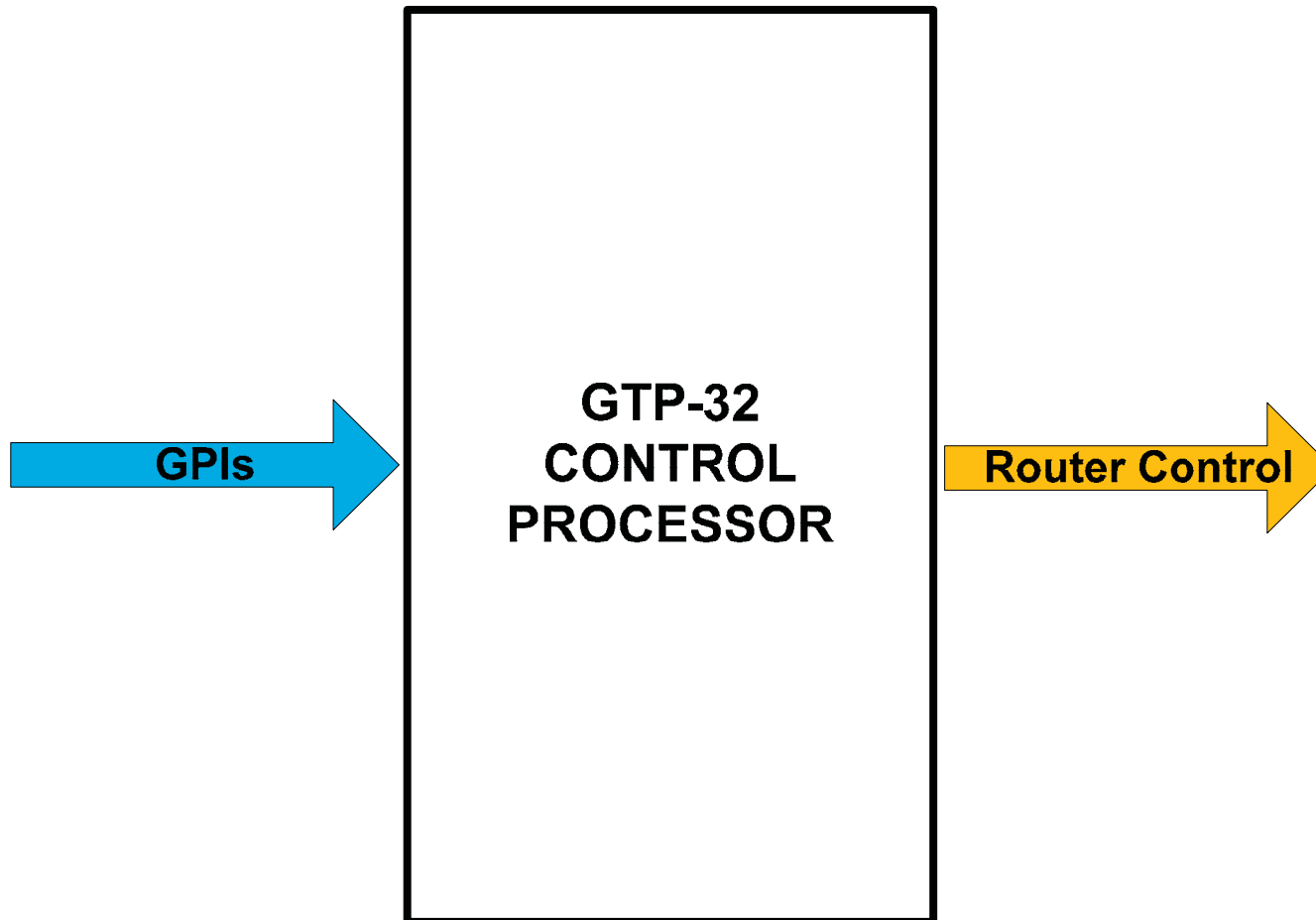


What Does The GTP-32 Do?

Assigns an Input Event to trigger an Output Action

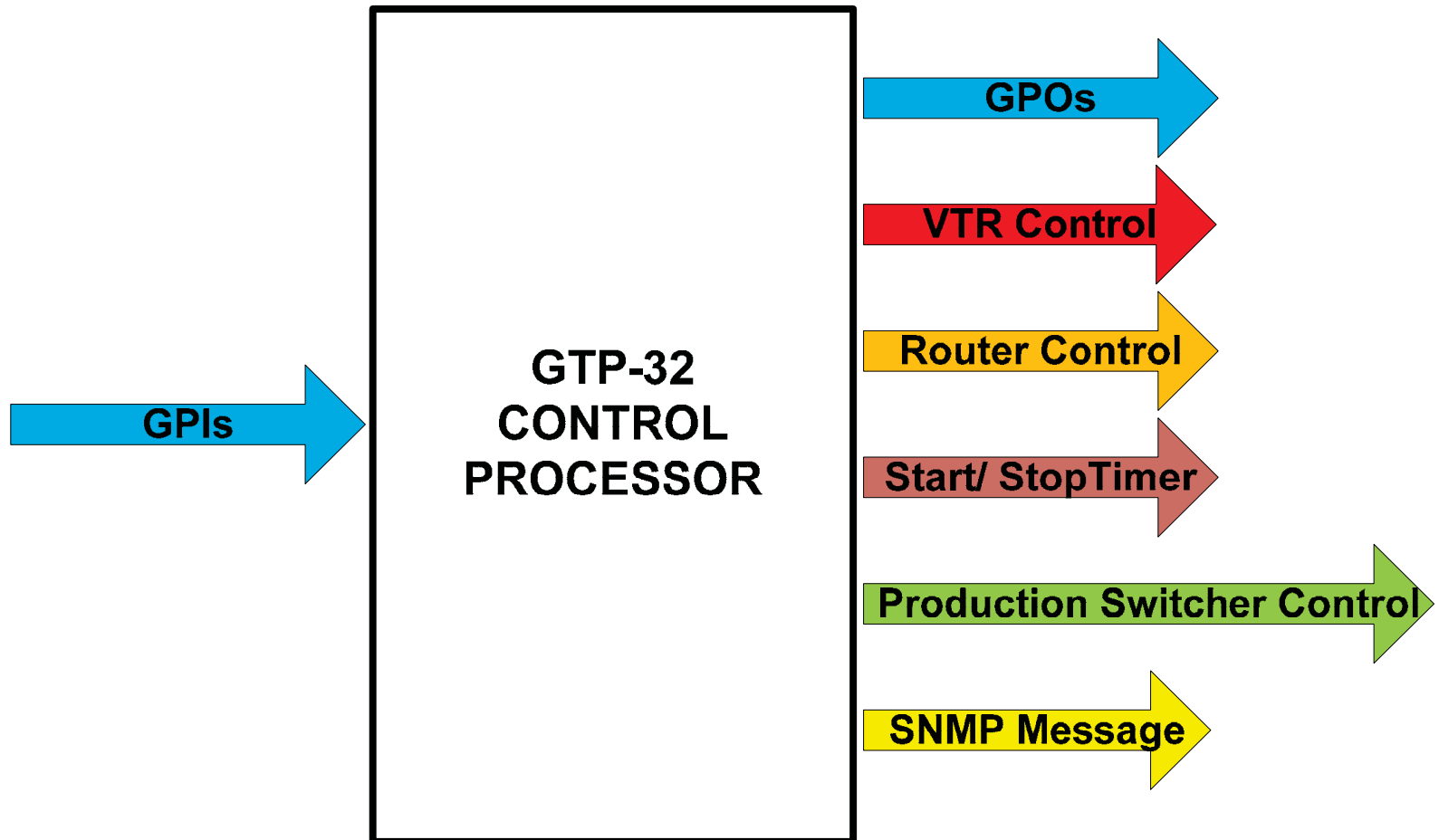


Assign one Input Event to control one Action



1 EVENT ➡ ➡ ➡ ➡ 1 ACTION

Assign one Input Event to control many Actions



1 EVENT ➡ ➡ ➡ ➡ **MANY ACTIONS**

Event Monitor Table Web Page

[Add / Edit Events](#) / [Edit Actions](#) / [Delete](#) / [Backup](#) / [Restore](#) / [Create Default Event Monitor Table](#)

Currently used file is not a restored file.

Last Refreshed: June / 4 / 2012 19:54:03

EVENTS

Status	Source IP	ConnectionStatus	Event Label	Event Status
Enabled	0.0.0.0	Local	GPI_1	OFF
Enabled	0.0.0.0	Local	GPI_2	OFF
Enabled	0.0.0.0	Local	GPI_3	OFF
Enabled	0.0.0.0	Local	GPI_4	OFF
Enabled	0.0.0.0	Local	GPI_5	OFF
Enabled	0.0.0.0	Local	GPI_6	OFF
Enabled	0.0.0.0	Local	GPI_7	OFF
Enabled	0.0.0.0	Local	GPI_8	OFF
Enabled	0.0.0.0	Local	GPI_9	OFF
Enabled	0.0.0.0	Local	GPI_10	OFF
Enabled	0.0.0.0	Local	GPI_11	OFF
Enabled	0.0.0.0	Local	GPI_12	OFF
Enabled	0.0.0.0	Local	GPI_13	OFF
Enabled	0.0.0.0	Local	GPI_14	OFF
Enabled	0.0.0.0	Local	GPI_15	OFF
Enabled	0.0.0.0	Local	GPI_16	OFF
Enabled	0.0.0.0	Local	GPI_17	OFF
Enabled	0.0.0.0	Local	GPI_18	OFF
Enabled	0.0.0.0	Local	GPI_19	OFF
Enabled	0.0.0.0	Local	GPI_20	OFF
Enabled	0.0.0.0	Local	GPI_21	OFF

ACTIONS

ON/OFF Type	ON Data	ON Function	OFF Data	OFF Function
GPO Control	1:GPO_1	Turn On GPO	1:GPO_1	Turn Off GPO
GPO Control	2:GPO_2	Turn On GPO	2:GPO_2	Turn Off GPO
GPO Control	3:GPO_3	Turn On GPO	3:GPO_3	Turn Off GPO
GPO Control	4:GPO_4	Turn On GPO	4:GPO_4	Turn Off GPO
GPO Control	5:GPO_5	Turn On GPO	5:GPO_5	Turn Off GPO
GPO Control	6:GPO_6	Turn On GPO	6:GPO_6	Turn Off GPO
GPO Control	7:GPO_7	Turn On GPO	7:GPO_7	Turn Off GPO
GPO Control	8:GPO_8	Turn On GPO	8:GPO_8	Turn Off GPO
GPO Control	9:GPO_9	Turn On GPO	9:GPO_9	Turn Off GPO
GPO Control	10:GPO_10	Turn On GPO	10:GPO_10	Turn Off GPO
GPO Control	11:GPO_11	Turn On GPO	11:GPO_11	Turn Off GPO
GPO Control	12:GPO_12	Turn On GPO	12:GPO_12	Turn Off GPO
GPO Control	13:GPO_13	Turn On GPO	13:GPO_13	Turn Off GPO
GPO Control	14:GPO_14	Turn On GPO	14:GPO_14	Turn Off GPO
GPO Control	15:GPO_15	Turn On GPO	15:GPO_15	Turn Off GPO
GPO Control	16:GPO_16	Turn On GPO	16:GPO_16	Turn Off GPO
GPO Control	17:GPO_17	Turn On GPO	17:GPO_17	Turn Off GPO
GPO Control	18:GPO_18	Turn On GPO	18:GPO_18	Turn Off GPO
GPO Control	19:GPO_19	Turn On GPO	19:GPO_19	Turn Off GPO
GPO Control	20:GPO_20	Turn On GPO	20:GPO_20	Turn Off GPO
GPO Control	21:GPO_21	Turn On GPO	21:GPO_21	Turn Off GPO

Input Event



Output Action

Input Event ➔ Output Action: How it Works

[Add / Edit Events](#) / [Edit Actions](#) / [Delete](#) / [Backup](#) / [Restore](#) / [Create Default Event Monitor Table](#)

Currently used file is not a restored file.

Last Refreshed: June / 4 / 2012 19:54:03

EVENTS

ACTIONS

Status	Source IP	ConnectionStatus	Event Label	Event Status	ON/OFF Type	ON Data	ON Function	OFF Data	OFF Function
Enabled	0.0.0.0	Local	GPI_1	OFF	GPO Control	1:GPO_1	Turn On GPO	1:GPO_1	Turn Off GPO
Enabled	0.0.0.0	Local	GPI_2	OFF	GPO Control	2:GPO_2	Turn On GPO	2:GPO_2	Turn Off GPO
Enabled	0.0.0.0	Local	GPI_3	OFF	GPO Control	3:GPO_3	Turn On GPO	3:GPO_3	Turn Off GPO
Enabled	0.0.0.0	Local	GPI_4	OFF	GPO Control	4:GPO_4	Turn On GPO	4:GPO_4	Turn Off GPO
Enabled	0.0.0.0	Local	GPI_5	OFF	GPO Control	5:GPO_5	Turn On GPO	5:GPO_5	Turn Off GPO

Input Event turns ON ➔ Execute ON Function

Input Event turns OFF ➔ Execute OFF Function

More than one Input Event controls the same ON action:

Any Input Event can execute the ON action (Logical OR)

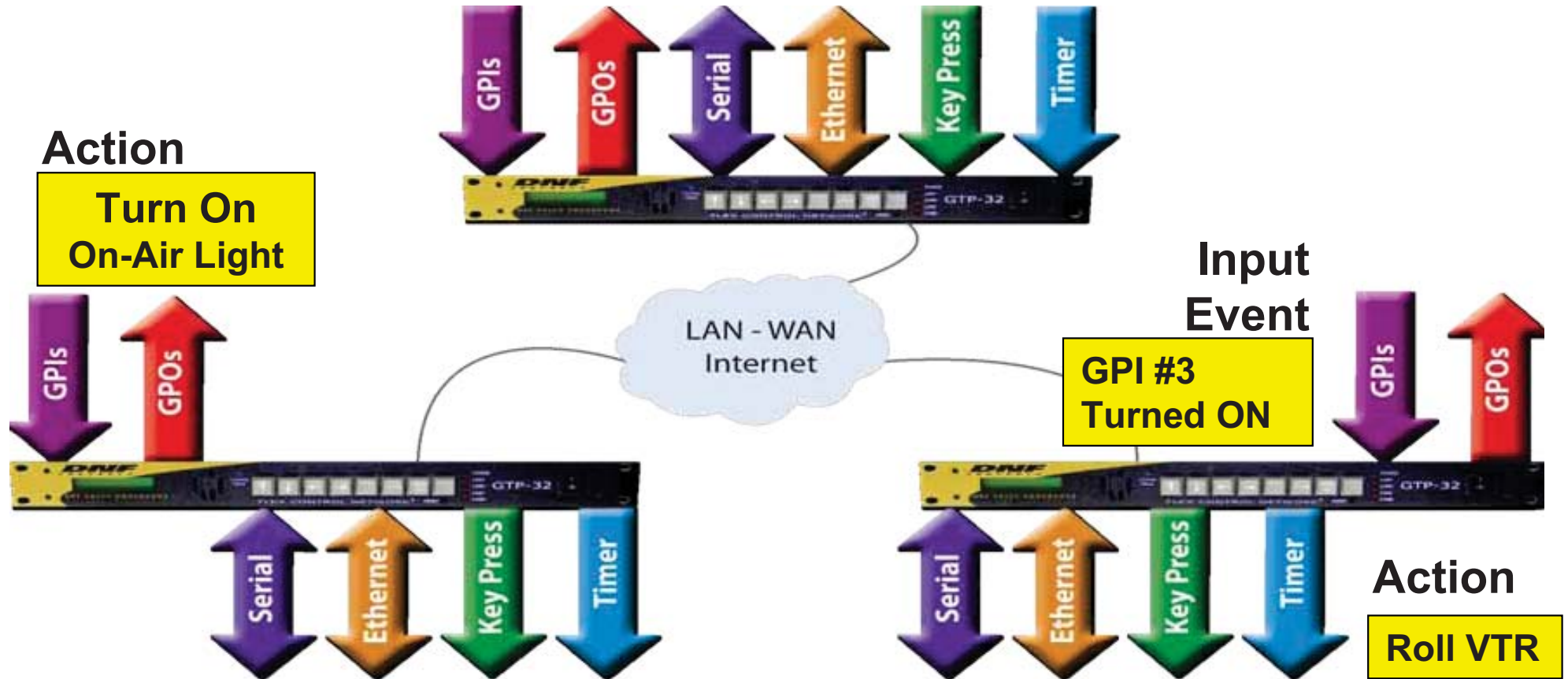
More than one Input Event controls the same OFF action:

All Input Events must be OFF to execute OFF action (Logical AND)

What Does It Do?

Assigns an Input Event to trigger an Output Action

Within one GTP-32 OR across GTPs

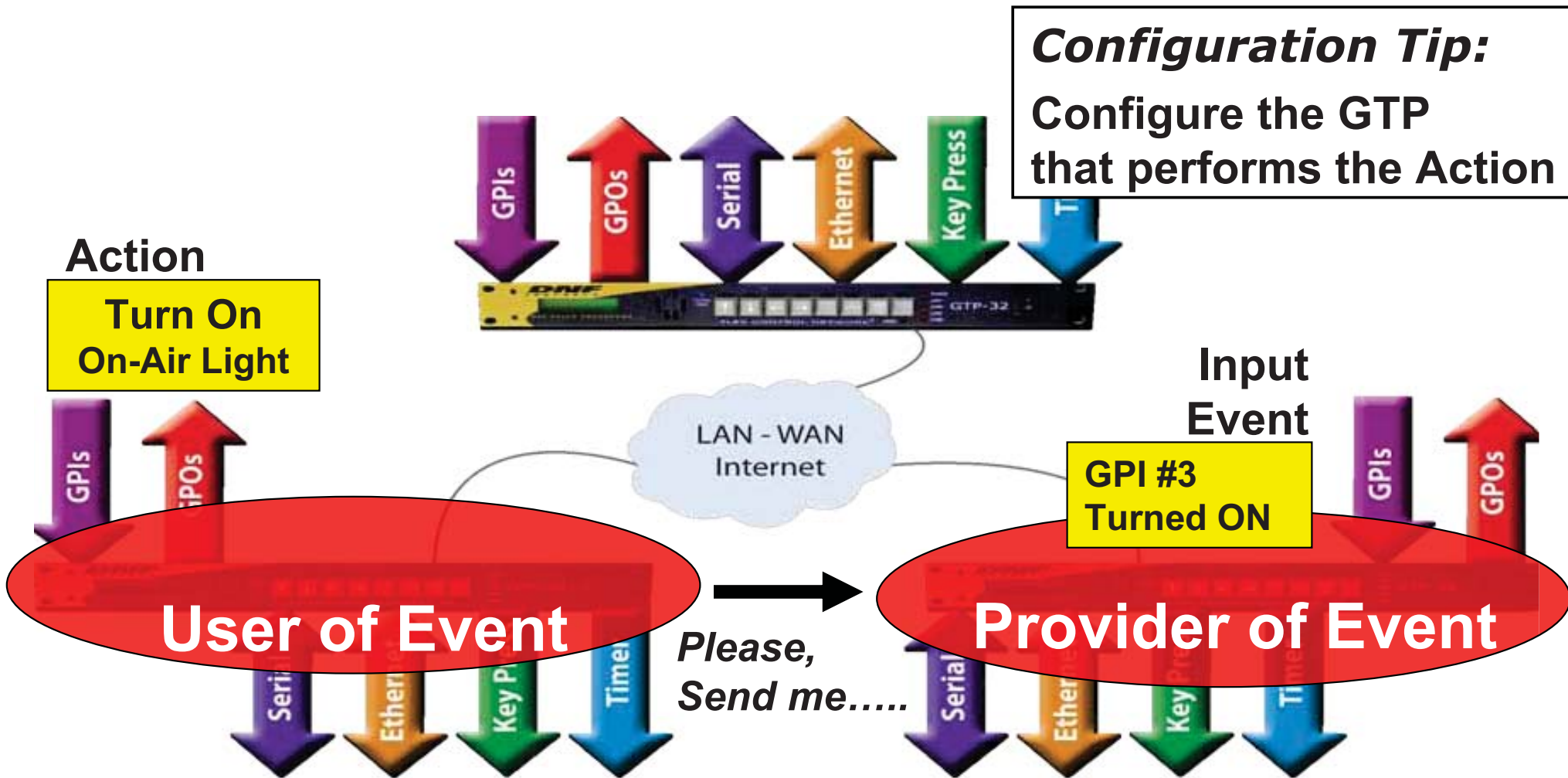


Actions are ALWAYS LOCAL

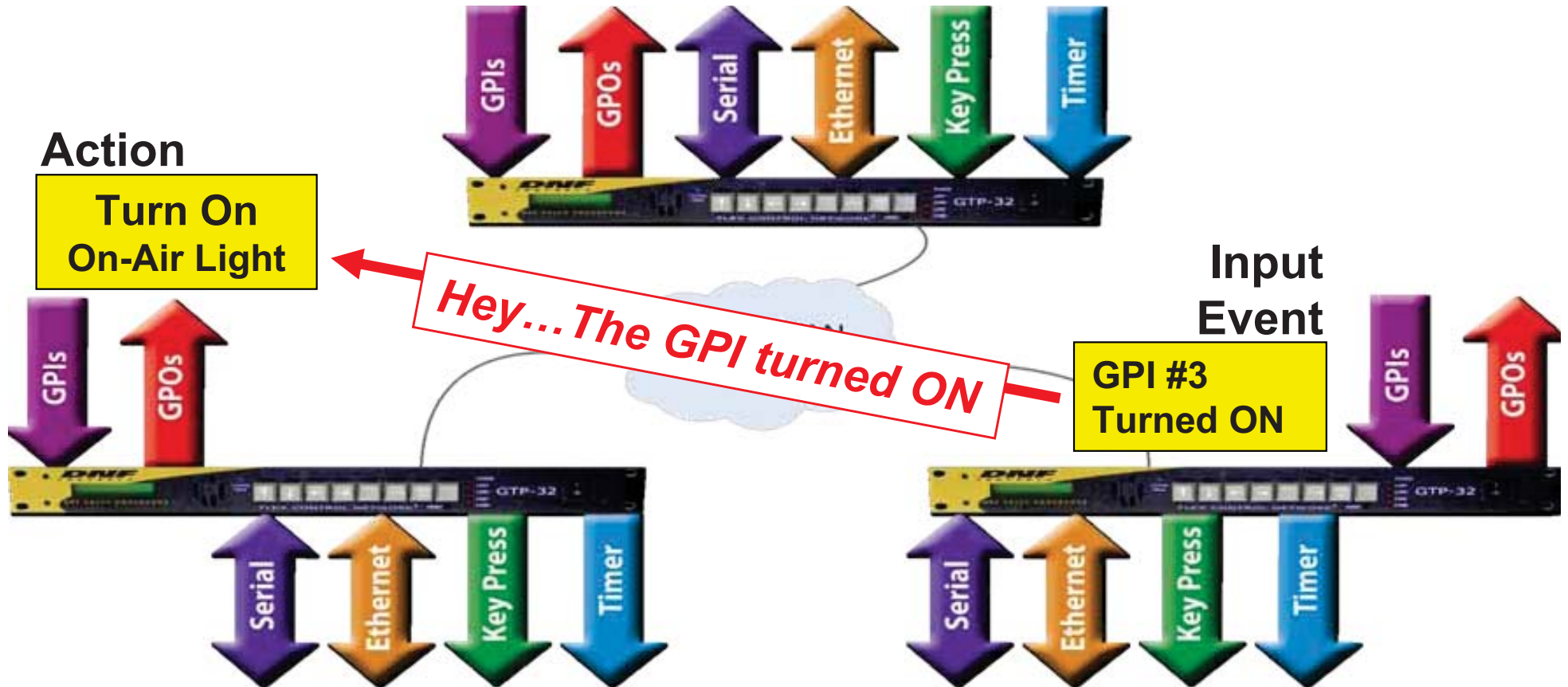
Events can be Local or Remote



The *USER(GTP-32)* of the EVENT Is Responsible for Requesting It



The GTP-32 is an *Event Driven System*
The Event must *change state*
to *trigger* an action



Event Labels / Action Labels

- The Labels are the only way to refer to an Input Event and Output Action.
- Labels are case sensitive. TEST123 & test123 are not the same.
- Every Input Event is given a unique label (name) on the local GTP-32.
- The Input Event Label is used in Configuration Tables on the local GTP or remote GTP.

Event Labels / Action Labels

- The same Input Event label may exist on more than one GTP.
The GTP-32 IP Address + Event Label makes it unique.
- Protocol Assignment Table Monitor Event Labels and Control Action Labels are automatically prefixed with “CH_x_” where x= channel number.
- Every Output Action is given a unique label on the local GTP. The Output Action label is used in Configuration Tables only on the local GTP.

GTP-32 Control Processor is a distributed, de-centralized control platform

**Central
Controller**

**Power-up
Order**

**Single
Point of
Failure**

Each GTP-32 has its own:

- **Intelligence**
- **Configuration**
- **Seven 1-day log files**

WEB PAGES

- Use standard web-browser:
Firefox, Chrome, Internet Explorer, Safari
- View any configuration web page at any time.
No login required
- Login is required to make any changes
- Login is always required for the System link

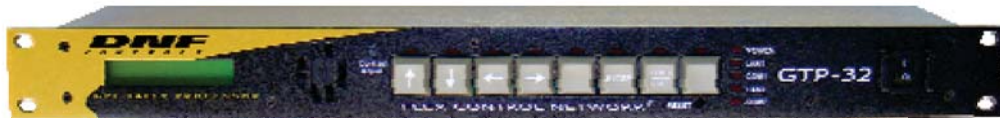
**Interconnecting GTP-32s
will introduce the
high level concepts for making
GTP-32s work together.**

**When you understand how the
GTP-32 “thinks” and “behaves”,
it will be easier to make it
do what you want!**

Interconnecting GTP-32s



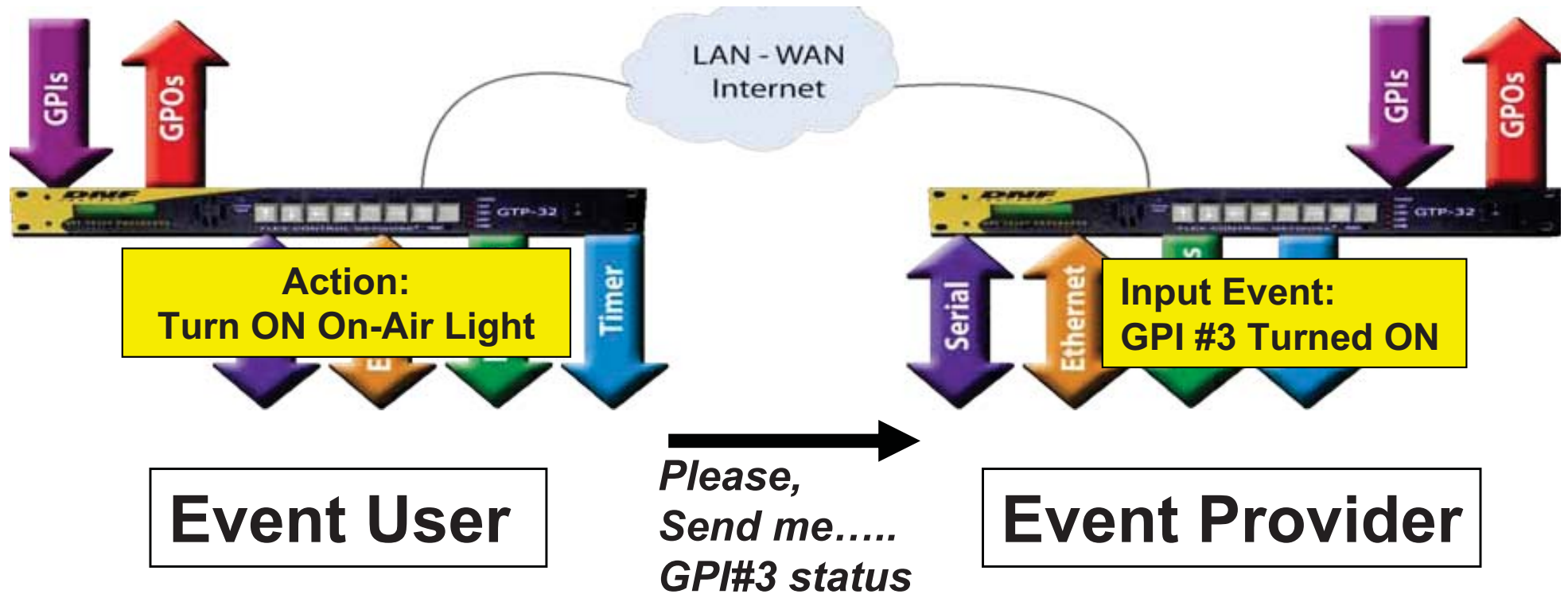
**Ethernet Connection (10/100)
TCP/IP**



(TCP/IP used on the world wide web)

- **Connect within building, between buildings,**
 - **Between cities, between countries**
 - **Over LAN, WAN, Internet**
-
- **Each GTP has static IP address, subnet Mask, and Gateway**
 - **Standard GTP has one Ethernet connection**
 - **GTPs can be configured for two Ethernet connections**

Interconnecting GTP-32s

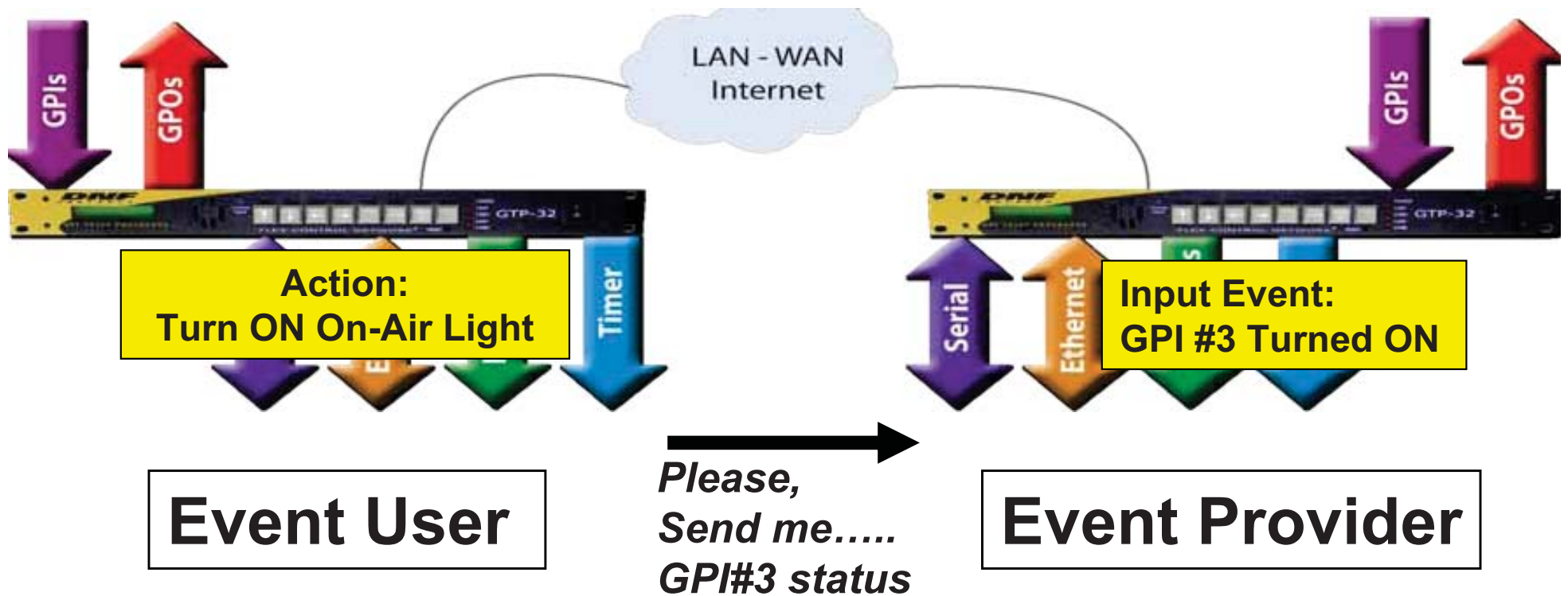


Event User establishes connection to Event Provider

Event User requests Event status (registration)

Event User re-establishes connection if lost

Interconnecting GTP-32s



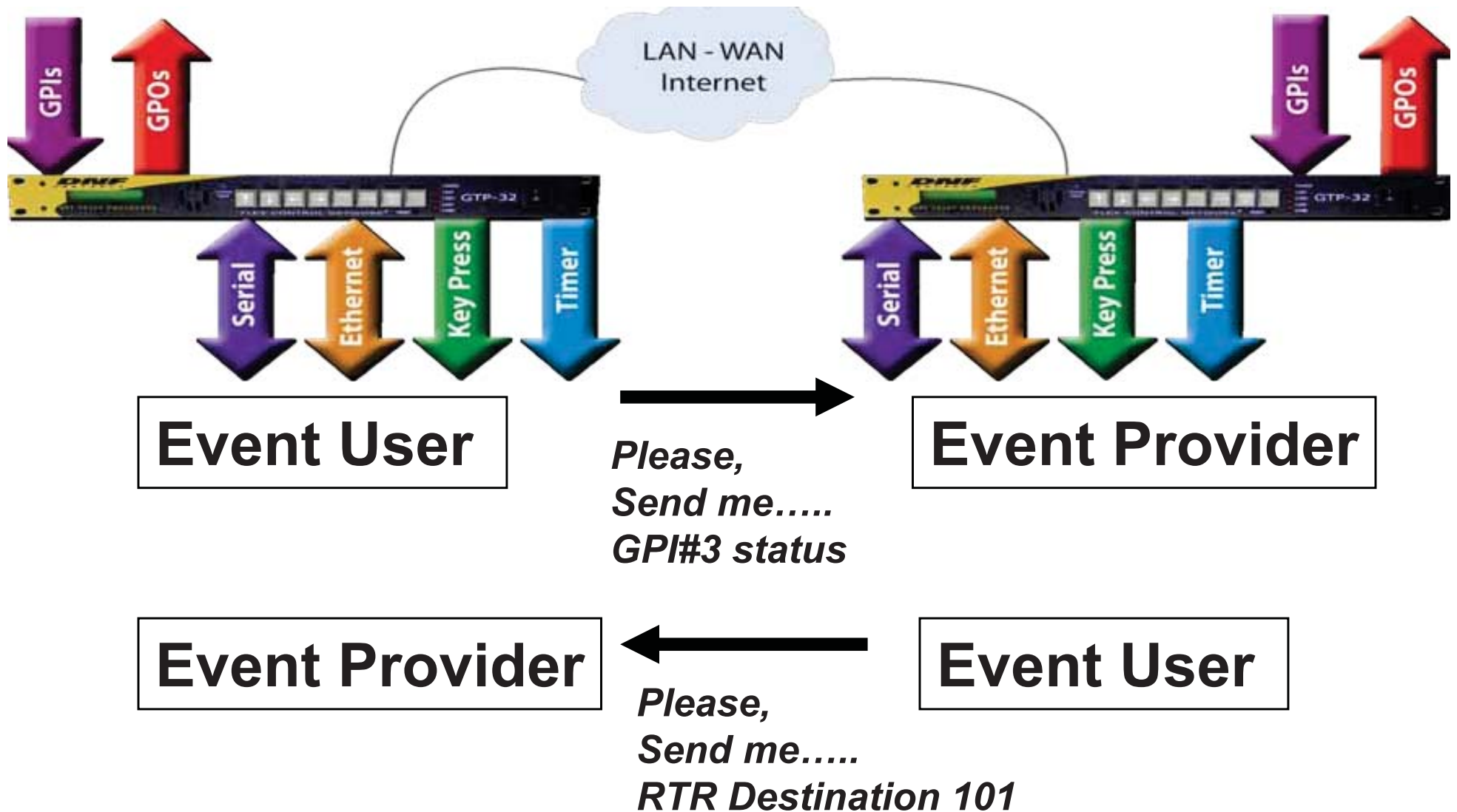
Configure the Event User GTP-32

to use *remote* Input Event GPI #3

to trigger *local* action "Turn ON on-air light"

Interconnecting GTP-32s

One GTP-32 can be both Event Provider & Event User



Interconnecting GTP-32s

Configuration Web Pages show Connection Status

EVENT MONITORING TABLE

Status	Source IP	Connection Status	Event Label	Event Status	Frequency	GPO Label	ON Function	OFF Function
Enabled	10.25.25.11	Offline	CAM_15_R	Error	Repetitive	CAM_15_R_GPO	Turn On GPO	Turn Off GPO
Enabled	10.25.25.12	Remote	DNF6_CT1_Comb	OFF	Repetitive	DNF6_Rply_Trig	Turn On GPO	Turn Off GPO
Enabled	0.0.0.0	Local	DNF6_CT2_Comb	Pending	Repetitive	DNF6_Rply_Trig	Turn On GPO	Turn Off GPO
Disabled	0.0.0.0	Local	DNF6_CT3_Comb	Error	Repetitive	DNF6_Rply_Trig	Turn On GPO	Turn Off GPO
Disabled	0.0.0.0	Local	DNF6_CT11_Comb	Error	Repetitive	DNF6_Rply_Trig	Turn On GPO	Turn Off GPO
Disabled	0.0.0.0	Local	DNF6_CT13_Comb	Error	Repetitive	DNF6_Rply_Trig	Turn On GPO	Turn Off GPO
Disabled	0.0.0.0	Local	DNF6_CT17_Comb	Error	Repetitive	DNF6_Rply_Trig	Turn On GPO	Turn Off GPO

Connection Status: Offline
Remote
Local

Event Status: Error
Pending
On/ Off

Interconnecting GTP-32s

Configuration Web Pages show Connection Status

REMOTE EVENT DEFINITION TABLE

[Refresh](#)

Local Event Label	Remote Event Label	Remote IP	Enabled ?	Connected ?
REM_GE_BI_X	GE_BI_X	192.168.10.234	YES	NO
REM_GE_XY_X	GE_XY_X	192.168.10.233	YES	YES
REM_GW_BI_X	GW_BI_X	192.168.10.234	YES	NO
REM_GW_XY_X	GW_XY_X	192.168.10.233	YES	YES
REM_JV_BI_X	JV_BI_X	192.168.10.234	YES	NO
REM_JV_XY_X	JV_XY_X	192.168.10.233	YES	YES
REM_S1_BI_X	S1_BI_X	192.168.10.234	YES	NO
REM_S1_XY_X	S1_XY_X	192.168.10.233	YES	YES
REM_S2_BI_X	S2_BI_X	192.168.10.234	YES	NO
REM_S2_XY_X	S2_XY_X	192.168.10.233	YES	YES

**Connected: YES
NO**

Interconnecting GTP-32s

Event Logs show Connection Status

"SYS:07/29/2013 23:06:49:00","LTC:23:13:17:19","58466581","DCP: REMOTE DEVICE 10.164.217.60:1082 is OFFLINE"

"SYS:07/29/2013 23:06:49:00","LTC:23:13:17:19","58466581","DCP: REMOTE DEVICE 10.164.217.60 is completely disconnected"

"SYS:07/29/2013 23:06:51:00","LTC:23:13:19:20","58466703","DCP: REMOTE DEVICE 10.164.217.60:1083 is ONLINE"

"SYS:07/29/2013 23:10:00:00","LTC:23:16:28:19","58478040","DCP: REMOTE DEVICE 10.161.203.138:1079 is OFFLINE"

"SYS:07/29/2013 23:10:00:00","LTC:23:16:28:19","58478040","DCP: REMOTE DEVICE 10.161.203.138 is completely disconnected"

"SYS:07/29/2013 23:10:02:00","LTC:23:16:30:19","58478160","DCP: REMOTE DEVICE 10.161.203.138:1080 is ONLINE"

**www.dnfcontrols.com is a great resource
for product information, manuals and
“How To” documents**

**Have product questions
Call Us.....Email Us**

**Have configuration questions
Call Us.....Email Us**