BOSCH
Invented for life

Conettix D6600 Communications Receiver/Gateway

▸ **32 lines for public switched telephone network (PSTN) communications**

▸ **Up to 3200 accounts for local-area network (LAN) or wide-area network (WAN) communications**

▸ **Telephone line terminator cards for isolation and transient suppression**

▸ **Front panel access to CPU card and hot-swappable line cards**

▸ **Supports one D6690 SAFECOM Line Card for long-range radio system capability**

▸ **Two-way audio**

▸ **Caller ID, ANI, and DNIS**

▸ **NIST AES Certification for Network Communications**

▸ **Supports 128-bit AES Rijndael encryption**

The D6600 Communications Receiver/Gateway with Conettix IP hardware components works in the following configurations:

- Telephone line communications over the public switched telephone network (PSTN).
- Internet or intranet communications over a LAN or WAN using standard user datagram protocol and internet protocol (UDP/IP).
- Simultaneous PSTN and LAN or WAN communications.

The network environment reduces signal-reporting time and provides instant notification when a site experiences communication problems. A D6600 with Conettix IP hardware is compatible with most manufacturer's fire and security system control panels. With Bosch Security Systems' control panels, high speed remote programming over the network is also possible.

System Overview

PSTN Communications Configuration

This configuration uses existing telephone lines. A control panel's signal transmits over a PSTN analog telephone line to the D6600 Communications Receiver/Gateway. The D6600 translates the signal to a common data format and sends the signal through Ethernet LAN, WAN, or RS-232 to a central station automation system.

### Internet or Intranet Communications Configuration

This configuration requires Conettix IP hardware components, uses existing Internet or intranet structures, and avoids additional telephone service costs.
This configuration permits the D6200 Programming Software to connect to the D6600 remotely. A control panel's signal transmits over the LAN or WAN to the D6600 Communications Receiver/Gateway. The D6600 translates the signal to a common data format and sends the signal through Ethernet LAN, WAN, or RS-232 to a central station automation system. The central automation system sends information to operator workstations.

D6200 Programming Software

D6200 Programming Software is a PC-based application that allows users to view, change, upload, and download D6600 programming parameters through a network connection or RS-232 serial port. Through the D6200 Programming Software users can edit CPU and line card parameters; view the status of all accounts in the databases; add, edit, and delete accounts; and configure network operations.

Note   D6200 Programming Software works with the following operating systems and associated service packs: Microsoft® Windows® 98, Windows 98 Second Edition, Windows Me,

Windows NT®, Windows 2000, and Windows XP.
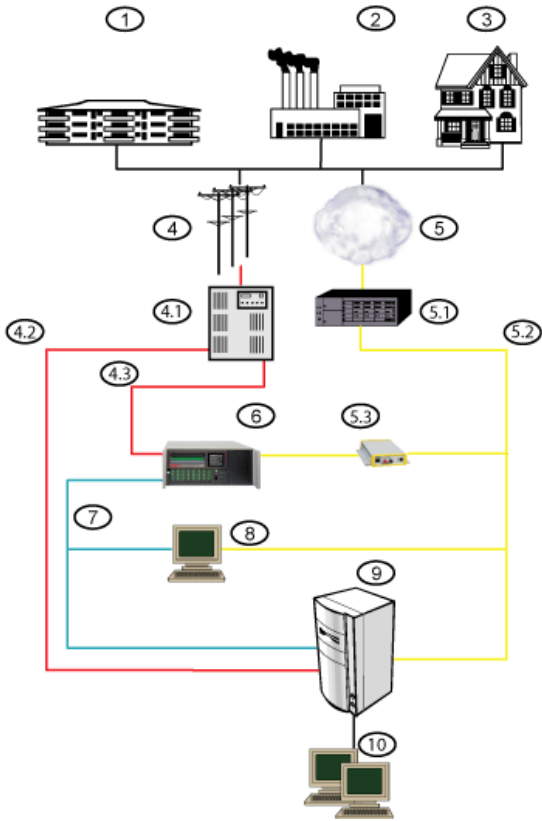
1. Access Control
2. Commercial Monitoring
3. Residential Monitoring
4. PSTN
   4.1 Private Branch Exchange (PBX)
   4.2 Two-way Audio
   4.3 Analog Telephone Lines
5. LAN/WAN
   5.1 Firewall, Router, and Hub
   5.2 LAN
   5.3 D6680 Ethernet Network Adapter
6. D6600 Receiver
7. RS-232
8. D6200 Programming Software
9. Automation System
10. Central Station Operators

Functions

Communication Formats

- Acron Superfast
- Ademco Slow
- ROBOFON
- Scantronics Scancom

- Ademco Express
- Ademco High Speed
- Ademco Contact ID
- CFSK BELL/V.21
- FBI Superfast
- Franklin/Sescoa
- ITI
- Radionics BFSK
- Radionics Hex
- Radionics Modem II
- Radionics Modem IIe/IIIa[2]
- RB2000
- SERIEE FSK/DTMF
- Sescoa Super Speed
- SIA 8/20/300
- SIA ADT
- SIA V.21
- Silent Knight Fast
- Silent Knight FSK
- Standard Pulse Formats
- Sur-Gard DTMF
- Telim
- Veritech FSK
- VONK

PSTN Communications

Function	Benefit
Dialed number identification service (DNIS) adjusts line card settings according to the telephone number dialed by the control panel.	Handles more field dialers with fewer line cards and allows you to create virtual lines.
Caller identification (Caller ID) alarm processing stores corresponding handshake formats. The processing automatically recalls the format when the same caller identification is processed.	Shortens the amount of time that calls are connected to the receiver. Decreases money spent on fixed hardware or monthly phone bills.
Uses the D6640 or D6641 Telephone Line Card.	Digital signal processing technology in the cards allows the D6600 to recognize more communication formats and accurately decode information.

Additional PSTN Communications Advantages

- Automatic number identification (ANI) system identifies incoming telephone numbers.
- Each line card has four telephone lines.
- Receives signals on up to 32 telephone lines simultaneously.
- Independent, configurable communication format settings for each telephone line.
- Visual front panel light emitting diode (LED) indicators for on-line and line-fault status conditions.

Supports SAFECOM

The D6690 SAFECOM Line Card adds long-range radio system capability to the D6600 Communications Receiver/Gateway. This card replaces the original PC receiver (SC9001) by condensing the required functions onto a line card within the D6600 Communications Receiver/Gateway.

Two-way Audio

- Able to transfer calls to another line or extension.
- Activated by account numbers and by events.

LAN or WAN Gateway Communications

- Requires Conettix IP hardware components.
- Two-way communications with a control panel.

- Supervised network automation computer links.
- Supports up to 3200 network accounts.
- Ethernet configuration available.
- Supports 128-bit AES Rijndael encryption.

Supervision and Programming with Network Communications

The protected premises sends supervision messages to the D6600 at a programmed rate. Users can program the supervision rate to be 5 seconds to 1275 seconds. The D6600 acknowledges the supervision message, providing end-to-end security. If authentication and encryption algorithms detect potentially damaging activity, they alert the central station operator.

The data network's communication link is continuously supervised. Even when monitoring thousands of control panels, the system consumes only a small amount of bandwidth.

Front Panel Access

The D6600 Communications Receiver/Gateway design provides convenient access to the CPU card or the hot-swappable telephone line cards. A hot-swappable card can be removed and replaced without affecting system performance.

Flash Technology

Using the D6200 Programming Software, flash technology in the D6600 Communications Receiver/Gateway allows for software upgrades without additional hardware or firmware changes.

Certifications and Approvals

D6600 Certifications and Approvals

Approvals	Austel Approved
	CE
	CTR-21
	EN60950 Safety
	EN50130-4 Electromagnetic Compatibility
	EN55022 Radiated/Conducted Emissions
	FCC Registration: ESVUSA-25328-AL-N
	FCC, Part 15 Radiated/Conducted Emissions
	FCC, Part 68 Telecom
	CSFM 1615:168, 1615:179, 1615:143 (California State Fire Marshall)
	HKFSD (Hong Kong Fire Services Department)
	IC (Industry Canada) Registration: 1249A-8925A
	ULC (Underwriters Laboratories of Canada)
	NIST AES Certification
	FM Approvals
UL Standards	UL365, Police Station Connected Burglar Alarm and Systems

UL864, Control Units for Fire Protective Signaling Systems

UL1610, Central Station Burglar Alarm Units

Network Communications Certifications and Approvals

Approvals	National Institute of Standards and Technology's Advanced Encryption Standard Certification (Certificate Number 82)
	CE
	FCC, Part 15 Radiated/Conducted Emissions
UL Standards	UL864, Control Units for Fire Protective Signaling Systems
	UL1610, Central Station Burglar Alarm Units

Installation/Configuration Notes

The D6600 and Monitoring Centers

The D6600 has extended edges so that installers can mount it easily into a rack cabinet. Mount up to eight D6600 Communications Receiver/Gateways into a standard 48.3 cm (19 in.) rack cabinet to conserve floor space. Each D6600 connects 32 telephone lines. Eight D6600 units can connect a total of 256 telephone lines, process 600,000 digital accounts, and process 28,800 supervised Internet or intranet accounts.

Note Rack cabinets are sold separately by a variety of manufacturers.

Incorporating Conettix IP Function into the D6600

With the correct Conettix IP hardware components, the D6600 Communications Receiver/Gateway can supervise the network communications link. The Conettix IP hardware components include:

- D6201 Series Conettix IP Security Keys
- D6672 COM 1 Expansion Kit
- D6680 Ethernet Network Adapter

Network Communications and Control Panels

For network communications, it is necessary to use one of following modules with the appropriate control panel: Conettix IP C900V2 Dialer Capture Module, D9133TTL-E Network Interface Module, or Conettix IP DX4020 Network Interface Module. Review the control panel specifications for the recommended network interface or dialer capture modules.

Parts Included

Quantity	Component
1	D6600 Communications Receiver/Gateway
1	D6610 CPU Card
1	D6615 CPU Terminator Card
1	D6640 Line Card or D6641 Line Card (Expanded Memory)
1	D6645 Telephone Line Terminator Card
1	D6200CD CD-ROM Includes the D6200 Programming Software
1	P6601 Battery Cable
1	P6602 Input and Output Cable

Technical Specifications

Electrical

Power Requirements

AC Nominal Operating Range:	120 V or 230 V
AC Maximum Operating Range:	100 VAC to 120 VAC, 220 VAC to 230 VAC, 50 Hz or 60 Hz, 2.5 A maximum
Standby Power:	Uninterruptible power supply (UPS) containing a sealed lead-acid battery, 12 V, 7 Ah to 18 Ah

Current Requirements

One Line Card Installed:	**Battery**: 800 mA **UPS AC Standby**: 350 mA
For Each Additional Line Card or Terminal Card Pair:	**Battery**: 210 mA **UPS AC Standby**: 35 mA
One Network Communications Card Installed:	**Battery**: 10 mA **UPS AC Standby**: 10 mA

Mechanical

Automation Outputs

Automation Outputs:	SIA mode 6500 mode

Enclosure

Rack Mount Dimensions (4U):	18 cm x 48.3 cm x 49.5 cm (7.0 in. x 19.0 in. x 19.5 in.)
Standalone Dimensions:	18 cm x 45 cm x 49.5 cm (7.0 in. x 17.75 in. x 19.5 in.)
Weight:	8.7 kg (19 lb)

Telephone

Telephone:	RJ11C modular jacks, with 26 AWG or larger wire diameter

Ringer Equivalence Number (REN)

REN:	0.4 B
Industry Canada (IC) REN:	0.2

Display

Screen Dimensions:	1.8 cm x 15.2 cm (0.7 in. x 6.0 in.) dot matrix LCD, 5 x 7 dots per character. Shows two separate lines, 40 characters per line.
Indicators:	LED display section indicates receiver status and power.

Inputs and Outputs

For Automation Computer Connection:	One RS-232 interface port COM3
For External Serial Printer, PC, Modem, or Network Connection:	One RS-232 interface port COM4
For Parallel Printer Connection:	One parallel printer port
Number of Programmable Inputs:	Two (wire harness included)
Number of Programmable Outputs:	Two (wire harness included)

Optional Input

For Optional Network Communications Expansion:	One RS-232 interface port COM1

Environmental

Temperature (Operating):   0°C to 50°C
                             (+32°F to +122°F)

Trademarks

Microsoft®, Windows®, and Windows NT® are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Ordering Information

Conettix D6600 Communications Receiver/Gateway Supports communications through PSTN, LAN/WAN, or both. Supports 32 telephone lines and 3200 network accounts. Supports two-way audio, Caller ID, ANI, and DNIS.	D6600

Accessories

3200 Account Conettix IP Security Key (LPT) Designed for parallel ports. Allows each D6600 Communications Receiver/Gateway to support a maximum of 3200 IP accounts.	D6201
3200 Account Conettix IP Security Key (USB) Designed for USB ports. Allows each D6600 Communications Receiver/Gateway to support a maximum of 3200 IP accounts.	D6201-USB
500 Account Conettix IP Security Key (USB) Designed for USB ports. Allows each D6600 Communications Receiver/Gateway to support 500 IP accounts.	D6201-500-USB
D6610 CPU Card Provides programmable FLASH memory for firmware upgrades. Includes a 20,000-event history buffer and a computer microprocessor.	D6610
D6615 CPU Terminator Card Provides a shielded interface between the D6610 CPU Card and external connections to automation database computers and printers.	D6615
D6641 Telephone Line Card (Expanded Memory) Provides DSP technology. Answers and decodes signals from up to four telephone lines.	D6641
D6645 Telephone Line Terminator Card Provides isolation and transient suppression to the D6640 or D6641 Telephone Line Cards.	D6645
D6672 Com 1 Expansion Kit Creates a third serial port on the D6600 Communications Receiver/Gateway. Provides a DB9 male connector and transient protection.	D6672

Ordering Information

D6680 Ethernet Network Adapter Ethernet 120/240 VAC adapter. Connects the D6600 RS-232 Automation Data Port to an Ethernet LAN/WAN. One adapter is required for each D6600 serial port with a direct connection to a data network (LAN/WAN).	D6680-E120
D6690 SAFECOM Line Card This line card is the main microcontroller unit providing SAFECOM capability for the D6600 Communications Receiver/Gateway. Requires a D6695 SAFECOM Line Termination Card.	D6690
D6691 SAFECOM Expansion Card Expansion board that adds an additional four ports to the D6690 SAFECOM Line Card, allowing up to eight RF2000 Radio Modems. Requires a D6695 SAFECOM Line Termination Card.	D6691
D6695 SAFECOM Line Termination Card A four port termination card for connecting to RF2000 Radio Modems. Required for the D6690 SAFECOM Line Card and the D6691 SAFECOM Expansion Card.	D6695
P6601 Battery Cable Connects a 12 VDC power source to the D6600 Communications Receiver/Gateway.	P6601
P6602 Input and Output Cable Connects to the receiver and provides use of the input and output lines.	P6602
P6603 Acknowledgement Button Spare acknowledgement button.	P6603

Software Options

D6200 CD ROM Provides software for programming, operating, simulating, and demonstrations.	D6200CD