

5. Infrastructure Profile

5.1 Transportation

5.1.1 Land Transportation

5.1.1.1 Cagayan de Oro City is connected to five other regions in Mindanao with a good network of highways. It is the strategic gateway to the rest of Mindanao. Travel by land takes 40 hours from Manila via Surigao City, and 9 hours from Davao City via Butuan City, and 6 hours via Bukidnon. Cagayan de Oro City has a total road length of 592.44710 kilometers.

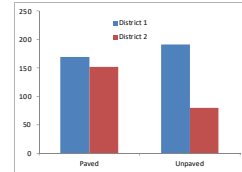
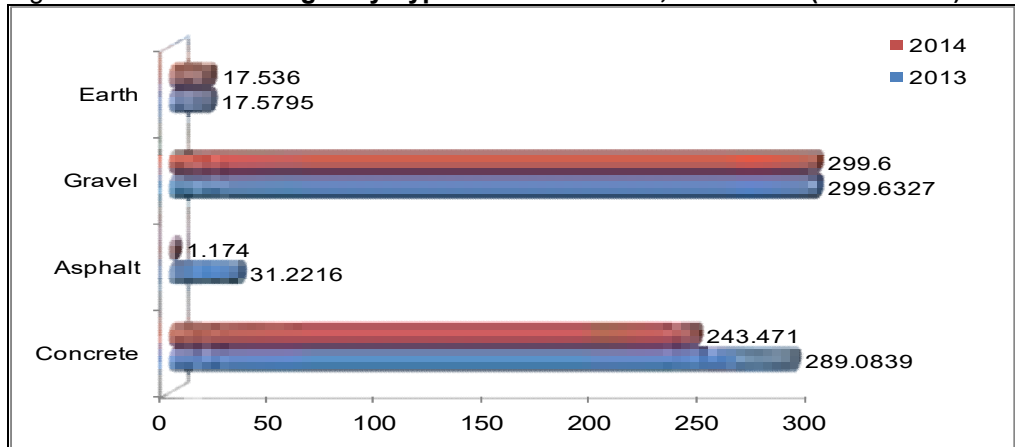


Figure 15 : Road Length By Type of Construction, 2013-2014 (in kilometer)



Source : DEPW, DPWH SUB-DISTRICT, DPWH Region 10

5.1.1.2 The City, being a primary regional center **is a major public transport center**. Land Transportation services are provided by several bus companies with plying routes to and from Bukidnon, Davao, Butuan, Iligan, Zamboanga, and Manila. Other services are facilitated by cargo trucks/vans, and several types of light vehicles for hire which serve the entire island of Mindanao.

5.1.1.3 The proliferation of cars brings about sweeping traffic congestion. Road capacity has become inadequate.

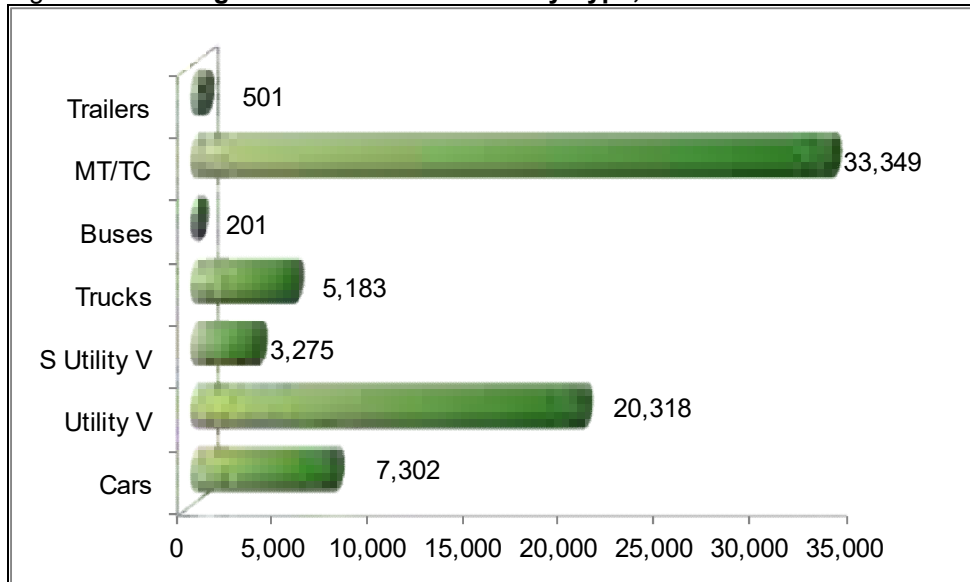
Table 44 : Annual Number of Registered Motor Vehicles By Type, 2001-2015

Year	Total	Cars	Utility Vehicles	Buses	Truck/s	Trailers	Motorcycles/ Tricycles/ + SUV
2001	33,180	5,730	13,055	687	3,859	185	9,225+439
2002	34,326	5,616	16,635	604	4,128	230	9,751+362
2003	28,712	4,944	11,682	462	3,073	189	8,123+239
2004	29,931	4,973	12,734	567	3,283	158	8,216
2005	30,816	5,130	12,558	468	2,610	198	9,043+809
2006	38,513	5,765	14,877	435	3,397	121	12,300+1,618
2007	36,830	4,885	13,181	354	2,824	206	14,077+1,303
2008	41,782	4,880	13,054	355	3,031	178	18,815+1,469
2009	43,128	5,071	13,915	436	3,440	231	18,419+1,616
2010	44,406	4,912	13,939	346	3,418	242	19,836+1,713
2012	57,509	5,602	16,431	115	4,287	293	28,593+2,188
2013	-	-	-	-	-	-	-
2014	71,963	7,294	20,601	155	5,965	464	34,502+2,982
2015	70,219	7,302	20,318	201	5,183	501	33,439+3,275

Source : Land Transportation Office

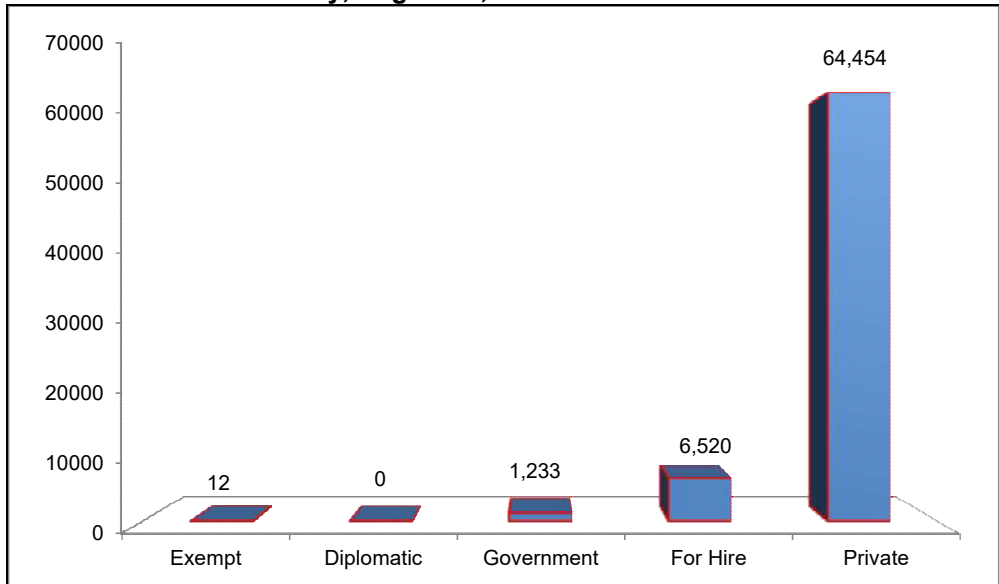
5.1.1.4 The day to day management of traffic is handled by the Road and Traffic Administration (RTA), (formerly named Traffic Management and Enforcement Bureau (TMEB)).

Figure 16 : Registered Motor Vehicles By Type, 2015



Source : Land Transportation Office (LTO)

Figure: 17 : Registered Motor Vehicles By Classification, Cagayan de Oro City, Region X , CY 2014-2015



Source : Land Transportation Office (LTO)

Graph above shows the comparison of registered vehicle classifications between two consecutive years. There is a slight decrease of registered numbers for diplomatic, government and for hired vehicles. While, a little increase for Exempt and Private vehicles.

5.1.2 Air Transportation

5.1.2.1 The Laguindingan Airport which is located in Laguindingan, Misamis Oriental is reported to be the 6th busiest Airport in the country, It is approximately 40 kilometers away from Cagayan de Oro City proper. Its concrete runway is 2,200 meters long and 36 meters wide.

Table 45 : Annual Summary Reports Aircraft Passenger & Cargo Movement, CY 2015

Airlines	No. of Flights		Passenger		Cargo kgs.	
	Incoming	Outgoing	Incoming	Outgoing	Incoming	Outgoing
Air Asia Phil	231	381	23539	25496	198371	17913
Cebgo	729	729	81216	85100	961757	954262
Cebu Pacific Air	3934	3934	500738	524025	5708302	8056331
PAL Express	1957	1957	251289	265222	4229340	5780079

Source : Air Transportation Office

Table 46 : Annual Air Traffic Volume By Number of Passengers and Cargoes, 2005-2015

Year	No. of Passengers	Cargoes (in Kgs.)
2005	512,158	10,169,170
2006	584,801	9,971,911
2007	779,020	12,409,114
2008	884,671	11,036,183
2009	10,916,56	16,112,720
2010	1,301,502	22,252,702
2012	1,643,985	21,818,335
2013	1,638,398	20,127,219
2014	1,553,569	21,823,029
2015	-	-

Source : Air Transportation Office

Table 47 : **Number of Flights and Volume of Passengers/Cargoes By Month, 2014**

MONTH	FLIGHTS		PASSENGERS		CARGOES (IN kgs)	
	IN	OUT	IN	OUT	IN	OUT
January	656	656	67,014	74,835	769,576	1,095,140
February	588	588	60,177	63,343	701,190	992,996
March	677	677	71,240	69,730	817,153	620,999
April	631	631	76,249	79,014	929,299	610,911
May	616	616	76,149	78,334	849,003	638,328
June	544	544	64,286	68,614	766,646	670,313
July	625	625	63,376	64,731	785,012	643,001
August	643	643	60,548	65,152	759,974	796,836
September	632	632	59,925	64,165	783,730	741,889
October	628	628	68,888	66,847	842,636	1,465,174
November	578	578	57,634	68,568	872,920	1,068,321
December	666	666	78,239	71,340	1,109,623	805,549
TOTAL	7,484	7,484	803,725	834,673	9,986,762	10,140,457

Source : Air Transportation Office

5.1.3 Sea Transportation

5.1.3.1 Cagayan de Oro seaports have the shortest distance to the major ports in the Visayas and Luzon, thus making such ports the favorite exit of people and cargo coming from various points in Mindanao.

5.1.3.2 The City has one government port, and five private ports, namely:

- Baseport (government) in Macabalan
- Cagayan Corn Products Corporation, Tablon
- Del Monte Philippines, Incorporated, Bugo
- General Milling Corporation, Tablon
- MITIMCO-Mindanao Timber Company, Baloy
- Carlos A. Gothong Incorporated, Baloy

With its strategic location and with the numerous seaports along its extensive coast, the City has sustained its role as the principal distribution center for the adjacent provinces of Misamis Oriental, Lanao del Norte, Bukidnon, Agusan and Surigao City.

5.1.3.3 The baseport, known to be the Port of Cagayan de Oro, is a contributing factor that made the City the ideal major trading center in Mindanao. It is the focal point of domestic and foreign trade in the Province of Misamis Oriental, as well as the export outlet of the vast agricultural Province of Bukidnon.

5.1.3.5 Modern support services and infrastructure facilities of the Port of Cagayan de Oro sufficiently answer the increasing demand of domestic and foreign traffic. The cargo handling operations are undertaken by "Task Force Oro Port".

Table 48 : Shipcalls, Cargo and Passengers, 2015

Particulars	Baseport	Private Ports	Government Ports	Total
SHIPCALLS	2,404	11,266	1,702	15,372
Foreign	102	1	161	264
Domestic	2,302	11,266	1,541	15,108
CARGO (m.t.)	1,974,049.03	3,073,801.15	51,808.60	5,099,658.77
Domestic	1,422,905.35	1,974,713.78	51,808.60	3,499,427.72
Inbound	684,672.73	522,642.64	37,109.48	1,244,424.85
Outbound	738,232.62	1,452,071.13	14,699.12	2,205,002.89
Foreign	551,143.68	1,099,087.37	-	1,650,231.05
Import	523,576.10	955,887.17	-	1,479,463.27
Export	27,567.58	143,200.20	-	170,767.78
PASSENGERS	1,157,577	-	1,310,291	2,467,868
Disembarked	623	-	669,010	1,292,012
Embarked	534,575	-	641,281	1,175,856

Source : *Philippine Ports Authority*

5.2 Water Supply

5.2.1 The Cagayan de Oro Water District (COWD), registered in 1973, was the first water district to be established in the country.

In 2015 its service area covered 64 of the 80 barangays of the Cagayan de Oro City, which include Barangays 1-40 of the poblacion and 24 non-poblacion barangays. (for verification)

5.2.2 In 2013 water production was 57,156,233 cubic meter. The average production per month is 4,763,019 cubic meters and the water consumption per liter capita per day is 122 lpd.

5.2.3 COWD reservoirs, with the following respective location and capacity:

Table 49 : Water Service Area Connection, 2015

Barangay	No. of Service Connection			
	Residential	Commercial	Government	Total
West Service Area	42,684	1,732	65	44,481
East Service Area	36,397	4,152	133	40,682
Others	261	-	-	261
Total	79,342	5,884	198	85,424

Table 50 : Reservoir with its Respective Location and Capacity, 2015

Description	Location	Capacity
Concrete	Camaman-an	5,303 cu.m.
Concrete	Carmen	5,303 cu.m.
Steel Tank	Aluba Subd., Macasandig	76 cu.m.
Concrete	Bulua	2,900 cu.m.
Concrete	Tablon	2,100 cu.m.
Concrete	Puerto Heights, Puerto	4,000 cu.m.
Concrete	Youngsville	95 cu.m.

5.2.4 Service connections reached 81,417 in 2012, and 82,682 in 2013, majority of which were residential and commercial. The average water consumption in the entire City is about 2,059,561 cubic meters was consumed by residential/government and commercial users, as of December 31, 2013.

5.2.5 People living in areas not presently covered by COWD rely on point sources such as shallow well, dug well and spring or a combination of these sources for their water needs.

Some areas are served by communal faucet system. Other areas rely on ground water sources or rainwater and surface water.

Table 51 : Water Rates in Cagayan de Oro City Water District, 2015

A. Main Service Area

Classification	Size of Pipeline	Commodity Charges					
		Minimum Charge 1-10	11-20 cu.m.	21-30 cu.m.	31-40 Cu.m.	41 up cu.m.	Over 50 cu.m.
Residential/ Government	1/2"	218.40	30.55	31.85	33.65	36.00	36.00
	3/4"	349.40	30.55	31.85	33.65	36.00	36.00
	1"	698.85	30.55	31.85	33.65	36.00	36.00
	1 1/2"	1,747.20	30.55	31.85	33.65	36.00	36.00
	2"	4,368.00	30.55	31.85	33.65	36.00	36.00
	3"	7,257.60	30.55	31.85	33.65	36.00	36.00
	4"	15,724.80	30.55	31.85	33.65	36.00	36.00
Commercial/ Industrial	1/2"	436.80	61.10	63.70	67.30	72.00	72.00
	3/4"	698.80	61.10	63.70	67.30	72.00	72.00
	1"	1,397.80	61.10	63.70	67.30	72.00	72.00
	1 1/2"	3,494.40	61.10	63.70	67.30	72.00	72.00
	2"	8,736.00	61.10	63.70	67.30	72.00	72.00
	3"	15,724.80	61.10	63.70	67.30	72.00	72.00
	4"	31,449.60	61.10	63.70	67.30	72.00	72.00
10"	120,556.80	61.10	63.70	67.30	72.00	72.00	

B. Commercial/Industrial

Classification	Size of Pipeline	Commodity Charges					
		Minimum Charge 1-10	11-20 cu.m.	21-30 cu.m.	31-40 Cu.m.	41 up cu.m.	Over 50 cu.m.
Residential/ Government	1/2"	238.40	32.55	33.85	35.65	38.00	38.00
	3/4"	369.50	32.55	33.85	35.65	38.00	38.00
	1"	718.90	32.55	33.85	35.65	38.00	38.00
	1 1/2"	1,767.20	32.55	33.85	35.65	38.00	38.00
	2"	4,388.00	32.55	33.85	35.65	38.00	38.00
	3"	7,882.40	32.55	33.85	35.65	38.00	38.00
	4"	15,744.40	32.55	33.85	35.65	38.00	38.00
Commercial/ Industrial	1/2"	476.80	65.10	67.70	71.30	76.00	76.00
	3/4"	739.00	65.10	67.70	71.30	76.00	76.00
	1"	1,437.80	65.10	67.70	71.30	76.00	76.00
	1 1/2"	3,534.40	65.10	67.70	71.30	76.00	76.00
	2"	8,776.00	65.10	67.70	71.30	76.00	76.00
	3"	15,764.80	65.10	67.70	71.30	76.00	76.00
	4"	31,489.80	65.10	67.70	71.30	76.00	76.00

Source : Cagayan de Oro Water District (COWD)

5.3 Power and Electrification

5.3.1 Cagayan de Oro's power supply is adequately provided by sustainable sources, such as:

- 724 MW hydroelectric power sourced from the powerful Agus and Pulangi rivers provided by TRANSCO'S Mindanao Grid and distributed by CEPALCO.
- CEPALCO's 1 MWp grid connected, Photovoltaic Solar Power Plant considered the biggest in Asia. The conjunctive Operations of the Solar Power Plant and Bubunawan Power Company's (BPC) 7 MW Run-of-River Hydro is the first operational PV-Hydro tandem project in the world
- 210 MW coal-fired power plant of Germany's STEAG State Power, Inc. at the Phividec Industrial Estate.
- MINERGY's 18.90 MW land based power generating plant

5.3.2 Power distribution is facilitated by the **Cagayan Electric Power and Light Company (CEPALCO)**, and **MORESCO**

Table 52 : Electric Service By Barangay Covered, Number of Consumers and Power Consumption, 2015

Electric Service	Barangay Covered	Consumers		Consumption (Kwh)
		Type	Number	
CEPALCO	40 – Poblacion Barangays	Street Light	147	9,907,503
	26 – Non-Poblacion Barangays	Residential	98,482	200,190,112
	Agusan Gusa	Commercial	14,717	194,755,561
	Balubal Indahag	Industrial	221	138,036,394
	Balulang Iponan			
	Bayabas Kauswagan			
	Bonbon Lapasan	Bulk Power	8	177,351,151
	Bugo *Lumbia			
	Bulua Macabalan	Others		
	Camaman-an Macasandig			
*Canitoan Nazareth				
Carmen Patag				
Consolacion Puerto				
Cugman Puntod				
F.S. Catanico Tablon				
Sub-Total			107,575	720,240,721
MORESCO-1	15 – Non-Poblacion Barangays	Street Light	1,136	778,116.24
		Residential	12,558	13,851,260.74
	Baikingon Pagatpat	Commercial	227	2,078,964.19
	Bayanga Pigsag-an	Water System	4	40,539.92
	Besigan San Simon			
	*Canitoan Taglimao	Public Building & Facilities	156	372,516.95
Dansolihon Tagpangi				
Mambuaya Tuburan				
Pagalungan Tumpagon	Industrial	1	4,630.98	
				Tignapoloan
Sub-Total			14,082	17,126,028.28
Total			121,659	737,366,749.3

Source : Cagayan Electric Power and Light Company (CEPALCO) and Misamis Oriental –
1 Rural Electric Service Cooperative Incorporated (MORESCO)

* Barangay Lumbia, Canitoan served by both CEPALCO & MORESCO

Table 52-a : **Power Rates Per Kilowatt Hour, 2015**

Consumer Type	Effective Rate (Php/kwh)
CEPALCO	
Street Light – Schedule 15	6.1315
Residential 25	6.9545
Commercial 35	6.6213
Industrial 45	5.9042
Bulk Power 55	5.7144
MORESCO	
	Average Rate/Kwh
Street Light	10.4121
Residential	8.2637
Small Commercial	13.3193
Large Commercial	6.4706
Water System	7.2863
Public Building & Facilities	

Source : *Cagayan Electric Power and Light Company (CEPALCO) and Misamis Oriental – 1 Rural Electric Service Cooperative Incorporated (MORESCO)*

5.4 Communications

5.4.1 Sophisticated services give the City its modern character. Internet has experienced significant growth as service providers increased.

Table 53 : **Type of Communications Systems and Service Providers, 2015**

<p>I. Telecommunication Services:</p> <ol style="list-style-type: none"> 1. Telegraph Telex Stations <ul style="list-style-type: none"> - Telecommunications Office, Region 10 (no longer existing) 2. Telephone Service Provider <ol style="list-style-type: none"> a) Land Lines/Conventional System (Local Exchange Carrier (LEC)) <ul style="list-style-type: none"> - PLDT-Philcom - Smart Broadband, Inc./Cruz Telephone Co. - Misamis Oriental Telephone System, Inc. - Philippine Long Distance Co. - Southern Telecommunications Co, Inc. - Bayan Telecom <p>Note: Telecommunications Office has ceased its operation since August 2013 in Region 10</p>
--

- b) Cellular Mobile Telephone Service Providers
 - Smart Communications, Inc./Piltel (Talk “N Text)
 - Globe Telecomm. GMCR Inc./Islacom (Touch Mobile)
 - Digitel Mobile Phils, Inc. (Sun Cellular)

- c) Telephone Long Distance Exchange (Inter-Exchange Carrier)
 - PLDT – Philcom
 - PT & T
 - Bayan Telecom., Inc.
 - PLDT
 - Innove’ /Globe
 - Eastern Telecom Phils, Inc.

- d) Broadband Networks
 - PLDT
 - Globe Telecom/Innove Communications
 - PLDT - Philcom Corp.
 - ICC/Byantel
 - Innove Communications, Inc.
 - Parasat/Cable21 Technologies
 - SBI/Cruztelco
 - Smart Broadband, Inc.
 - Sotelco (Datacom Mozcom)
 - DC Tech Microservices, Inc.
 - Oro Graphics Inc.(Magnet Technologies)

- e) Wireless Local Loop Network
 - Bayantel Telecom., Inc.

3. Trunked Radio Stations

- MobileCom/UTSI
- Smart Trunk II

4. Fixed and Land Mobile Radio Services

Note: Use for Private Network Only and not a Service Provider

5. Safety and Special Services Stations

a. Ship Station

1. Trans-Asia Shipping Lines
2. Sulpicio Lines, Inc.
3. WG & A Superferry Lines
4. Negros Navigation Company
5. Gothong Southern Inc.
6. Camiguin Island Resort
7. Solid Shipping Line Corporation

b. Aircraft Station

1. Philippines Airlines Inc.
2. Air Philippines Corp.

3. Cebu Pacific Air/Tiger Air
4. Asian Spirit

6. Postal and Courier Services
 - please refer to Philippine Postal Corporation or DOTC

II. TV Stations

- a. ABS-CBN Broadcasting Corporation (DXCS-TV)
- b. Amcara Broadcasting Network (DCEC-TV)
- c. Radio Mindanao Network, Inc. (DXHB-TV)
- d. Gateway UHF TV Broadcasting, Inc. (DXGC-TV)
- e. Associated Broadcasting Corp. (DXTE-TV)
- f. GMA Networks
- g. RGMA Network, Inc. (UHF)

Cable TV Stations

- a. Parasat Cable TV, Inc.
- b. Jade Cable TV System, Inc.
- c. DEARBC Cable Network

III. Broadcast Stations

a. AM Radio

1. Radio Mindanao Network (DXCC) - Echem cor. Velez Sts., CdeO
2. Radio Philippines Network (DXKO) - RPN Compd., Gusa, CdeO
3. New Sound Broadcasting Network, Inc. (DXIF) - Corrales Ave., CdeO
4. Cebu Broadcasting Company (DXKH) - Zone 6, Bayabas, CdeO
5. Radio Pilipino Corporation (DXCO) - Highway Igpit, Opol, Mis. Or.
6. Philippine Broadcast Service (DXIM) - Agustin-Velez Sts., CdeO
7. COC Broadcast Network (DXJR) - Carmen, CdeO (Non-Operational)

b. FM Radio

1. Radio Mindanao Network (DXVM) - Velez-Echem Sts., CdeO
2. Nation Broadcasting Corporation (DXRL) - Nazareth, CdeO
3. Cebu Broadcasting Corp./Agila Radyo (DXHY) - Patag, CdeO
4. University of Mindanao Broadcasting Network (DXWZ) - Osmeña Extension, CdeO
5. Rajah Broadcasting Network (DXRJ) - Upper Carmen, CdeO
6. Relevant Outreach Resources, Inc. (DXJL) (Sarraga Integrated & Management Corporation) - Executive Centrum Building, J.R. Borja Street, CdeO
7. Quest Broadcasting, Inc. (DXKB) - Abellanosa St., CdeO (SSB Radio Network)
8. FSB Radio Network, Inc. (DXBL) - Agudo Drive, Lapanan, CdeO
9. Progressive Broadcasting Corporation (DXNY) - Corrales-J.R. Borja Streets, CdeO
10. Republic Broadcasting System, Inc.- GMA (DXLX) - Pabayo corner Hayes Streets, CdeO
11. Aliw Broadcasting Corporation (DXQR) - Hayes corner A. Velez Sts, CeO

12. ABS-CBN Broadcasting Corporation (DXEC) - Bulua, CdeO
13. Manila Broadcasting Corporation (DXKS) - 6th Floor, Imperial Plaza, Velez Street, CdeO
14. Manila Broadcasting Corporation (DXYR) - 6th Floor, Imperial Plaza, Velez Street CdeO,
15. Radyo deOro Corporation (Magnum) – Recto Avenue, CdeO
16. Hypersonic Broadcasting Center, Inc. (DXRU) – Suan Arcade, Vamenta St., Carmen, CdeO

IV. Broadband Networks

- PLDT
- Globe Telecom, Inc./Innove Communication, Inc.
- Philcom - PLDT
- Bayan Telecommunications, Inc.
- Parasat/Cable 21 Technologies
- Smart Wifi/Broadband Inc.
- Sotelco

V. Internet Service Provider (Registered)

- Bayan Telecommunications, Inc.
- Cable 21 Technologies
- DC Tech Microservices, Inc.
- Philcom On-Link
- Datacom Mozcom Cagayan
- Oro Graphics Inc. (Oro Magnet Technologies)
- XU Net (Campus Use Only)
-

VI. Wireless Data Network (WDN) Dealer

- Acro Tech Micro Devices, Inc.
- ADI – Asianic Distributors, Inc.
- CDR King General Merchandise
- Dataworld Computer Center
- Globalchips Technologies Co.
- Microtrade GCM Corporation
- Microtronix Marketing Sales & Service Center
- Proton Micro System, Inc. (Octagon Computer Store)
- REV Technologies
- Silicon Valley Computer Group Phils., Inc.
- Star Appliance Center, Inc. (SM City)
- Technomart
- E-Signage Phils., Inc.
- Infinittech Devices
- Infiniticare Tech Solutions, Inc.

VII. Radio Equipment Dealer

- A.D Mhz, Trading
- Electropro Marketing
- EBC Electronics & Communication Center
- IC Marketing
- Mircotrade GCM Corporation
- Solarcom Marketing (ex. Sonex Electronic & Electrical Center)
- UP Marketing

Source: National Telecommunications Commission