

(ii) *Sale of Equipment*

The Company determines that its revenue from sale of equipment shall be recognized at a point in time when the control of the goods have passed to the customer, i.e., generally when the customer has acknowledged delivery of the goods.

(b) *Determination of Transaction Price and Allocation of Amounts to Performance Obligations*

The transaction price for a contract is allocated amongst performance obligations identified in the contract based on their stand-alone selling prices, which are all observable. The transaction price for a contract excludes any amounts collected on behalf of third parties (i.e., VAT).

The Company uses the practical expedient in PFRS 15 with respect to non-adjustment of the promised amount of consideration for the effects of significant financing component as the Company expects, at contract inception, that the period when the Company transfers promised goods or services to the customer and payment due date is one year or less.

(c) *Determination of ECL on Financial Assets at Amortized Cost and Contract Assets*

The Company uses the simplified approach to calculate ECL for trade and other receivables and contract assets, except those trade receivables from certain agencies of the Philippine National Government (NG). The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns (i.e., by geography, product type, customer type and rating).

The provision matrix is based on the Company's historical observed default rates. The Company's management intends to regularly calibrate (i.e., on an annual basis) the matrix to consider the historical credit loss experience with forward-looking information (i.e., forecast economic conditions).

With respect to trade receivables arising from contracts with NG, management determines the ECL based on the most recent external credit rating provided for the Philippines. Such rating is considered as the equivalent loss rate in determining the loss allowance related to trade receivables with NG agencies, as it reflects both historical and current considerations, and accounts for the potential impact of future events.

In the case of receivables from related parties, which are repayable on demand, the contractual period is the very short period needed to transfer the cash once demanded. Management determines ECL based on the sufficiency of the related parties' highly-liquid assets in order to repay the Company's receivables if demanded at the reporting date, taking into consideration the historical defaults of the related parties. If the Company cannot immediately collect its receivables, management considers the expected manner of recovery to measure ECL. If the recovery strategies indicate that the outstanding balance of receivables can be fully collected, the ECL is limited to the effect of discounting the amount due over the period until cash is realized.

Details about the ECL on the Company's financial assets at amortized cost disclosed in Note 20.3.

(d) *Evaluation of Business Model Applied in Managing Financial Instruments*

The Company developed business models which reflect how it manages its portfolio of financial instruments. The Company's business models need not be assessed at entity level or as a whole but shall be applied at the level of a portfolio of financial instruments (i.e., group of financial instruments that are managed together by the Company) and not on an instrument-by-instrument basis (i.e., not based on intention or specific characteristics of individual financial instrument).

In determining the classification of a financial instrument, the Company evaluates in which business model a financial instrument or a portfolio of financial instruments belong to taking into consideration the objectives of each business model established by the Company (e.g., held-for-trading, generating accrual income, direct matching to a specific liability) as those relate to the Company's investment and trading strategies.

(e) *Testing the Cash Flow Characteristics of Financial Assets and Continuing Evaluation of the Business Model*

In determining the classification of financial assets, the Company assesses whether the contractual terms of the financial assets give rise on specified dates to cash flows that are SPPI on the principal outstanding, with interest representing time value of money and credit risk associated with the principal amount outstanding. The assessment as to whether the cash flows meet the test is made in the currency in which the financial asset is denominated. Any other contractual terms that changes the timing or amount of cash flows (unless it is a variable interest rate that represents true sale of money and credit risk) does not meet the amortized cost criteria. In cases where the relationship

between the passage of time and the interest rate of the financial instrument may be imperfect, known as modified time value of money, the Company assesses the modified time value of money feature to determine whether the financial instrument still meets the SPPI criterion. The objective of the assessment is to determine how different the undiscounted contractual cash flows could be from the undiscounted cash flows that would arise if the time value of money element was not modified (the benchmark cash flows). If the resulting difference is significant, the SPPI criterion is not met. In view of this, the Company considers the effect of the modified time value of money element in each reporting period and cumulatively over the life of the financial instrument.

In addition, PFRS 9 emphasizes that if more than an infrequent sale is made out of a portfolio of financial assets carried at amortized cost, an entity should assess whether and how such sales are consistent with the objective of collecting contractual cash flows. In making this judgment, the Company considers certain circumstances documented in its business model manual to assess that an increase in the frequency or value of sales of financial instruments in a particular period is not necessary inconsistent with a held-to-collect business model if the Company can explain the reasons for those sales and why those sales do not reflect a change in the Company's objective for the business model.

(f) *Determination of Lease Term of Contracts with Renewal and Termination Options*

In determining the lease term, management considers all relevant factors and circumstances that create an economic incentive to exercise a renewal option or not exercise a termination option. Renewal options and/or periods after termination options are only included in the lease term if the lease is reasonably certain to be extended or not terminated.

The Company did not include the renewal period as part of the lease term for leases of office spaces because the terms are renewable upon the mutual agreement of the parties.

For leases of office space, the factors that are normally the most relevant are (a) if there are significant penalties should the Company pre-terminate the contract, and (b) if any leasehold improvements are expected to have a significant remaining value, the Company is reasonably certain to extend and not to terminate the lease contract. Otherwise, the Company considers other factors including historical lease durations and the costs and business disruption required to replace the leased asset.

(g) *Recognition of Provisions and Contingencies*

Judgment is exercised by management to distinguish between provisions and contingencies. Accounting policies on provisions and contingencies are discussed in Note 2.9 and relevant disclosures are presented in Note 19.

**3.2 Key Sources of Estimation Uncertainty**

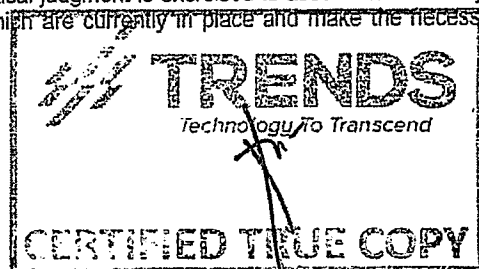
The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next reporting period:

(a) *Determination of Appropriate Discount Rate in Measuring Lease Liability*

The Company measures its lease liability at present value of the lease payments that are not paid at the commencement date of the lease contract. The lease payments were discounted using a reasonable rate deemed by management equal to the Company's incremental borrowing rate. In determining a reasonable discount rate, management considers the term of the leases, the underlying asset and the economic environment. Actual results, however, may vary due to changes in estimates brought about by changes in such factors.

(b) *Recognition of Revenues Based on Percentage of Completion*

The Company recognizes its revenue from rendering maintenance support and services, and system integration projects based on the POC under the input method of the project whereby the performance obligations are satisfied over time (see Note 2.10). The Company's application of POC method is based on its efforts or inputs (i.e., actual costs incurred) to the satisfaction of a performance obligation relative to the total expected construction costs. Review of the benchmarks set by management necessary for the determination POC is done regularly. Actual data is being compared to the related benchmarks and critical judgment is exercised to assess the reliability of the percentage of completion procedures which are currently in place and make the necessary revisions in the light of current progress.



(c) *Estimation of Allowance for ECL*

The measurement of the allowance for ECL on financial assets at amortized cost and at FVOCI and contract assets is an area that requires the use of significant assumptions about the future economic conditions and credit behavior (e.g., likelihood of customers defaulting and the resulting losses). Explanation of the inputs, assumptions and estimation used in measuring ECL is further detailed in Note 20.3.

(d) *Determination of Net Realizable Value of Inventories*

In determining the net realizable value of inventories, management takes into account the most reliable evidence available at the dates the estimates are made. The Company's core business is continuously subject to rapid technology changes which may cause inventory obsolescence. Moreover, future realization of the carrying amounts of inventories as presented in Note 6 is affected by physical deterioration, physical damage, price changes and other causes based on specific identification. Both aspects are considered key sources of estimation uncertainty and may cause significant adjustments to the Company's inventories within the next reporting period.

(e) *Estimation of Useful Lives of Property and Equipment*

The Company estimates the useful lives of property and equipment based on the period over which the assets are expected to be available for use. The estimated useful lives of property and equipment are reviewed periodically and are updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence and legal or other limits on the use of the assets. In addition, the estimation of the useful lives of property and equipment is based on collective assessment of internal technical evaluation and experience with similar assets.

The carrying amounts of property and equipment are analyzed in Note 8. Based on management's assessment as at December 31, 2022 and 2021, there is no change in estimated useful lives of property and equipment during those years. Actual results, however, may vary due to changes in estimates brought about by changes in factors mentioned above.

(f) *Determination of Realizable Amount of Deferred Tax Assets*

The Company reviews its deferred tax assets at the end of each reporting period and reduces the carrying amount to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Management assessed that the deferred tax assets recognized as at December 31, 2022 and 2021 will be fully utilized in the coming years. The carrying value of deferred tax assets as of those dates is disclosed in Note 16.

(g) *Impairment of Non-Financial Assets*

The Company's policy on estimating the impairment of property and equipment, investment in subsidiary and other non-financial assets is discussed in detail in Note 2.14. Though management believes that the assumptions used in the estimation of fair values reflected in the financial statements are appropriate and reasonable, significant changes in these assumptions may materially affect the assessment of recoverable values and any resulting impairment loss could have a material adverse effect on the results of operations.

No impairment loss on non-financial assets is required to be recognized in 2022 and 2021 based on management's assessment.

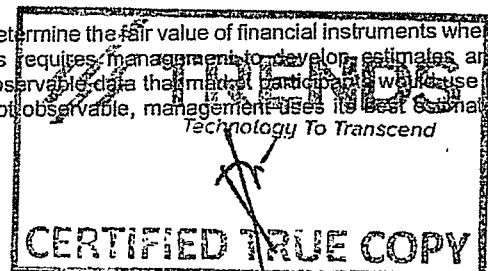
(h) *Valuation of Post-Employment Defined Benefit Obligation*

The determination of the Company's obligation and cost of post-employment benefit is dependent on the selection of certain assumptions used by the actuary in calculating such amounts. Those significant assumptions include, among others, discount rates and salary increase rate. A significant change in any of these actuarial assumptions may generally affect the recognized expense, other comprehensive income or losses and the carrying amount of the post-employment benefit obligation in the next reporting period.

The amounts of post-employment defined benefit obligation, and analysis of the movements in such account are presented in Note 15.2.

(i) *Fair Value Measurement for Financial Instruments*

Management applies valuation techniques to determine the fair value of financial instruments where active market quotes are not available. This requires management to develop estimates and assumptions based on market inputs, using observable data the market participants would use in pricing the instrument. Where such data is not observable, management uses its best estimate.



Estimated fair values of financial instruments may vary from the actual prices that would be achieved in an arm's length transaction at the end of the reporting period.

The carrying value of the Company's financial assets at FVOCI and the amount of fair value changes recognized on those assets are disclosed in Note 9.

4. **CASH AND CASH EQUIVALENTS**

This account includes the following components as of December 31:

|                           | <u>2022</u>          | <u>2021</u>          |
|---------------------------|----------------------|----------------------|
| Cash on hand and in banks | 1,474,698,646        | 966,418,138          |
| Short-term placements     | -                    | 2,982,208,913        |
|                           | <u>1,474,698,646</u> | <u>3,948,627,051</u> |

Cash in banks generally earn interest at rates based on daily bank deposit rates. Short-term placements are made for varying periods from 30 to 183 days and earn effective interest from .25 % to .575% in 2021. Interest income amounting to P14.4 million and to P23.9 million in 2022 and 2021, respectively, is presented as part of Other Income - Net account in the statements of comprehensive income (see Note 14).

The balances of cash on hand and in banks as of December 31, 2022 and 2021 did not include restricted cash amounting to P 61.4 million and P50.9 million, respectively, which is shown as part of the Prepayments and Other Current Assets, and Other Non-Current Assets accounts in the statements of financial position (see Note 7). Such amount is not available for the current use of the Company in accordance with the restrictions provided under certain contracts with customers.

5. **TRADE AND OTHER RECEIVABLES**

This account consists of the following:

|   | <u>Note</u> | <u>2022</u>          | <u>2021</u>          |
|---|-------------|----------------------|----------------------|
| Trade receivables                       |             | 3,272,652,554        | 2,356,543,630        |
| Due from related parties                | 17.4        | 3,261,246,412        | 1,519,878,594        |
| Receivables from officers and employees |             | 11,489,820           | 27,655,875           |
| Others                                  |             | 508,972,762          | 450,104,809          |
| Gross                                   |             | 7,054,361,548        | 4,354,182,908        |
| Allowance for impairment                |             | ( 148,324,651)       | ( 145,349,077)       |
| Net                                     |             | <u>6,906,036,897</u> | <u>4,208,833,831</u> |

Management determined that there is a significant financing component on contract assets related to a certain contract, wherein there are lower payments as compared to the POC, and the difference between the timing of payment and performance of related services is more than one year. Relative to this, the Company recognized interest income of P 1.6 million and P 1.1 million in 2022 and 2021, respectively, relating to such contract, which is presented as part of Interest income under Other Income - Net account in the statements of comprehensive income (see Note 14). The remaining unrecognized financing component (i.e., unearned interest income), which shall be recognized as interest income using the effective interest method, amounts to P 47.7 million and P 44.9 million as of December 31, 2022 and 2021, respectively.

Receivables from officers and employees are subject for liquidation and/or salary deductions. Liquidations are normally done within a prescribed period of time after the purpose of advances is accomplished, otherwise it should be charged to monthly payroll deductions to liquidate the advances.

Other receivables pertain to reimbursable promotional and marketing costs paid by the Company in favor of certain suppliers.



In 2022, P2,352,488 and P2,118,716 impairment loss on trade receivables and loans receivables, respectively, were recognized. Certain trade receivables were found to be impaired using the provision matrix as determined by management; hence, an adequate amount of allowance for impairment has been recognized in 2022 [see Note 20.3(b)]. A reconciliation of the allowance for impairment at the beginning and end of each reporting period is shown below.

|                                 | <u>Note</u> | <u>2022</u>        | <u>2021</u>        |
|---------------------------------|-------------|--------------------|--------------------|
| Balance at beginning of year    |             | 145,349,077        | 74,025,916         |
| Impairment losses               | 13          | 2,352,488          | 72,741,123         |
| Impairment on loans receivables | 13          | 2,118,716          | -                  |
| Write-off during the year       |             | ( 1,495,630)       | ( 1,417,962)       |
| Balance at end of year          |             | <u>148,324,651</u> | <u>145,349,077</u> |

## 6. INVENTORIES

The details of inventories are shown below.

|  | <u>2022</u>          | <u>2021</u>          |
|--|----------------------|----------------------|
| Information and technology equipment, and supplies | 1,172,447,903        | 1,370,148,159        |
| Allowance for inventory obsolescence               | ( 43,972,535)        | ( 43,972,535)        |
|  | <u>1,128,475,368</u> | <u>1,326,175,624</u> |

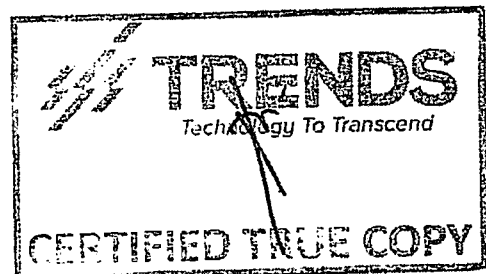
The movement for inventories is presented below.

|                                | <u>Note</u> | <u>2022</u>          | <u>2021</u>            |
|--------------------------------|-------------|----------------------|------------------------|
| Balance at beginning of year   |             | 1,326,175,624        | P 1,247,298,642        |
| Net purchases                  |             | 7,594,361,688        | 7,129,870,580          |
| Inventories available for sale |             | 8,920,537,312        | 8,377,169,222          |
| Cost of inventories sold       | 13          | ( 7,792,061,944)     | ( 7,050,993,598)       |
| Balance at end of year         |             | <u>1,128,475,368</u> | <u>P 1,326,175,624</u> |

Management makes periodic review of its inventory for possible impairment due to obsolescence and wear and tear.

The movement for the allowance for inventory obsolescence is presented below.

|  | <u>2022</u>       | <u>2021</u>       |
|--|-------------------|-------------------|
| Balance at beginning of year                     | 43,972,535        | 38,959,580        |
| Write-off  |                   |                   |
| Loss from inventory obsolescence during the year | -                 | 5,012,955         |
| Balance at end of year                           | <u>43,972,535</u> | <u>43,972,535</u> |



7. PREPAYMENTS AND OTHER ASSETS

The composition of this account is shown below.

|                     | Notes | 2022               | 2021               |
|---------------------|-------|--------------------|--------------------|
| <b>Current:</b>     |       |                    |                    |
| Restricted cash     | 4     | 45,456,521         | 41,303,198         |
| Prepayments         |       | 7,886,535          | 26,277,552         |
| Input VAT           |       | 505,047            | 17,159,313         |
| Deferred input VAT  |       | 2,892,798          | 2,229,358          |
|                     |       | <u>56,740,901</u>  | <u>86,969,421</u>  |
| <b>Non-current:</b> |       |                    |                    |
| Deferred input VAT  |       | 195,547,888        | 187,254,378        |
| Restricted cash     | 4     | 15,992,145         | 9,589,625          |
| Security deposits   | 19    | 1,169,615          | 1,050,465          |
| Refundable bonds    |       | 4,367,953          | 3,935,237          |
| Refundable deposit  |       | 216,070            | 45,537             |
|                     |       | <u>217,293,671</u> | <u>201,875,242</u> |
|                     |       | <u>274,034,572</u> | <u>288,844,663</u> |

Prepayments include prepaid rentals and local taxes, advance payments to a maintenance service provider for certain office equipment and machineries used in operations, and other prepayments which are expected to be realized within 12 months from the end of the reporting period.

Restricted cash represents amount contractually restricted under certain agreements with customers which obligate the Company to set aside cash maintained in banks for any future defects in the projects completed by the Company (see Note 4).

8. PROPERTY AND EQUIPMENT

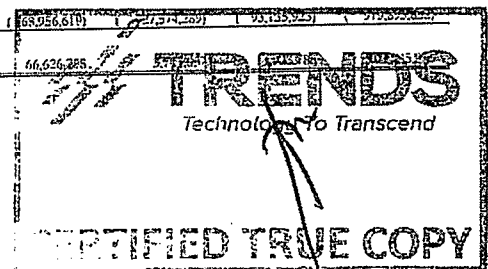
The gross carrying amounts and accumulated depreciation and amortization of property and equipment at beginning and end of 2022 and 2021 are shown below.

|                        | 44 | Notes | 2022               | 2021               |
|------------------------|----|-------|--------------------|--------------------|
| Property and equipment |    | 8.1   | 136,445,980        | 106,462,645        |
| Right-of-use asset     |    | 8.2   | 49,898,674         | 63,430,445         |
|                        |    |       | <u>186,344,654</u> | <u>169,893,090</u> |

8.1 Carrying Values of Property and Equipment

The gross carrying amounts and accumulated depreciation of property and equipment at beginning and end of 2022 and 2021 are shown below.

|   | Land             | Condominium Units | Leasehold Improvements | Machinery and Equipment | Transportation and Delivery Equipment | Other Equipment  | Total                |
|---|------------------|-------------------|------------------------|-------------------------|---------------------------------------|------------------|----------------------|
| <b>December 31, 2022</b>                  |                  |                   |                        |                         |                                       |                  |                      |
| Cost                                      | 1,519,900        | 21,790,480        | 113,470,019            | 996,545,189             | 31,321,946                            | 109,955,315      | 1,274,600,849        |
| Accumulated depreciation and amortization | -                | ( 21,790,480)     | ( 87,402,156)          | (890,794,417)           | ( 30,954,757)                         | ( 107,213,859)   | ( 1,138,154,869)     |
| <b>Net carrying amount</b>                | <u>1,519,900</u> | <u>-</u>          | <u>26,067,863</u>      | <u>105,750,772</u>      | <u>367,189</u>                        | <u>2,740,356</u> | <u>136,445,980</u>   |
| <b>December 31, 2021</b>                  |                  |                   |                        |                         |                                       |                  |                      |
| Cost                                      | 1,519,900        | 21,790,480        | 110,894,506            | 902,540,065             | 31,321,946                            | 107,574,763      | 1,775,041,742        |
| Accumulated depreciation and amortization | -                | ( 21,790,480)     | ( 81,249,643)          | ( 830,691,913)          | ( 29,779,689)                         | ( 105,667,452)   | ( 1,069,179,097)     |
| <b>Net carrying amount</b>                | <u>1,519,900</u> | <u>-</u>          | <u>29,644,863</u>      | <u>71,848,150</u>       | <u>1,542,337</u>                      | <u>1,907,311</u> | <u>106,462,645</u>   |
| <b>January 1, 2021</b>                    |                  |                   |                        |                         |                                       |                  |                      |
| Cost                                      | 1,519,900        | 21,790,480        | 65,565,336             | 835,385,417             | 31,321,946                            | 103,059,709      | 1,085,841,838        |
| Accumulated depreciation and amortization | -                | ( 21,790,480)     | ( 68,438,541)          | ( 830,956,619)          | ( 27,574,289)                         | ( 93,145,925)    | ( 919,915,869)       |
| <b>Net carrying amount</b>                | <u>1,519,900</u> | <u>-</u>          | <u>17,126,795</u>      | <u>66,626,285</u>       | <u>1,542,337</u>                      | <u>1,907,311</u> | <u>1,085,841,838</u> |



A reconciliation of the carrying amounts at the beginning and end of 2022 and 2021 of property and equipment is shown below.

|   | Land             | Condominium Units | Leasehold Improvements | Machinery and Equipment | Transportation and Delivery Equipment | Other Equipment  | Total              |
|---|------------------|-------------------|------------------------|-------------------------|---------------------------------------|------------------|--------------------|
| Balance at January 1, 2022, net of accumulated depreciation and amortization          | 1,519,900        | -                 | 29,644,947             | 71,848,150              | 1,542,337                             | 1,907,311        | 106,462,645        |
| Additions/Adjustment  | -                | -                 | 2,575,429              | 94,005,125              | -                                     | 2,378,552        | 99,959,106         |
| Depreciation and amortization charges for the year                                    | -                | -                 | ( 6,152,513)           | ( 60,102,505)           | ( 1,175,148)                          | ( 1,545,607)     | ( 69,975,772)      |
| Disposal through retirement   | -                | -                 | -                      | -                       | -                                     | -                | -                  |
| <b>Balance at December 31, 2022, net of accumulated depreciation and amortization</b> | <b>1,519,900</b> | <b>-</b>          | <b>26,067,863</b>      | <b>105,750,772</b>      | <b>507,189</b>                        | <b>2,740,256</b> | <b>136,445,980</b> |
| Balance at January 1, 2021, net of accumulated depreciation and amortization          | 1,519,900        | -                 | 17,127,845             | 66,626,798              | 3,747,657                             | 14,923,784       | 103,945,987        |
| Additions   | -                | -                 | 25,538,294             | 66,956,646              | -                                     | (484,946)        | 91,799,994         |
| Depreciation and amortization charges for the year                                    | -                | -                 | (12,611,162)           | (61,735,294)            | (2,205,326)                           | (12,531,529)     | (89,283,245)       |
| Disposal through retirement   | -                | -                 | -                      | -                       | -                                     | -                | -                  |
| <b>Balance at December 31, 2021, net of accumulated depreciation and amortization</b> | <b>1,519,900</b> | <b>-</b>          | <b>29,644,947</b>      | <b>71,848,150</b>       | <b>1,542,337</b>                      | <b>1,907,311</b> | <b>106,462,646</b> |

There are no other contractual commitments made for the acquisitions of property and equipment in 2022 and 2021.

The amount of depreciation and amortization is allocated and presented in the statements of comprehensive income under the following accounts:

|                    | Note | 2022              | 2021              |
|--------------------|------|-------------------|-------------------|
| Direct costs       |      | 48,558,247        | 85,331,167        |
| Operating expenses |      | 20,417,525        | 3,952,078         |
|                    | 13   | <u>68,975,772</u> | <u>89,283,245</u> |

No impairment loss was recognized in 2022 and 2021 as the carrying value of property and equipment is fully recoverable.

As of December 31, 2022 and 2021, the cost of the Company's fully-depreciated and fully-amortized property and equipment that are still in use amounts P 671.8 million and P627.6 million, respectively.

## 8.2 Right-of-use Asset and Lease Liability

The Company has leases for office space. With the exception of short-term leases, each lease is reflected on the statements of financial position as a right-of-use asset and a lease liability. Variable lease payments which do not depend on an index or a rate are excluded from the initial measurement of the lease liability and asset.

Each lease generally imposes a restriction that, unless there is a contractual right for the Company to sublet the asset to another party, the right-of-use asset can only be used by the Company. Leases are either non-cancellable or may only be cancelled by incurring a substantive termination fee. Some leases contain an option to purchase the underlying lease asset outright at the end of the lease, or to extend the lease for a further term. The Company is prohibited from selling or pledging the underlying leased assets as security. For leases over warehouses and offices, the Company must keep those properties in a good state of repair and return the properties in their original condition at the end of the lease. Further, the Company must insure the leased assets and incur maintenance fees on such items in accordance with the lease contracts.



The carrying amounts of the Company's right-of-use asset as at December 31, 2022 and 2021 and the movements during the period are shown below.

|                        | 2022                 | 2021                |
|------------------------|----------------------|---------------------|
| <b>Cost</b>            |                      |                     |
| Beginning balance      | 76,962,216           | 46,738,132          |
| Remeasurement on ROU   | -                    | 30,224,084          |
| Ending balance         | 76,962,216           | 76,962,216          |
| <b>Amortization</b>    |                      |                     |
| Beginning balance      | ( 13,531,771)        | ( 16,113,681)       |
| Current provision      | ( 13,531,771)        | ( 13,531,771)       |
| Remeasurement on ROU   | -                    | 16,113,681          |
| Ending balance         | ( 27,063,542)        | ( 13,531,771)       |
| <b>Carrying values</b> | <b>( 49,898,674)</b> | <b>P 63,430,445</b> |

The amount of amortization is presented as part of direct costs in the statements of comprehensive income (see Note 13).

Lease liability amounting to P62.7 million as at December 31, 2022 and P75.7 million as at December 31, 2021 are presented in the statements of financial position.

For both years presented, the Company is not committed to any leases which had not commenced.

The Company has elected not to recognize lease liabilities for short-term leases. Payments made under such leases are expensed on a straight-line basis. In addition, certain variable lease payments are not permitted to be recognized as lease liabilities and are expensed as incurred. The expenses relating to short-term leases amounts P3.7 million and P2.3 million in 2022 and 2021, respectively, and are presented as Rental expenses under Operating Expenses in the statements of comprehensive income (see Note 13).

The Company's lease liability amounting to P16.4 million in 2022 and 2021, are current and expected to be settled within one year, while lease liability amounting to P46.3 million and P59.3 million in 2022 and 2021, respectively, are non-current. Interest expense in relation to the lease liability amounts to P1,041,229 in 2022 and 2021 and is presented as part of interest expense under Other Income - Net in the statements of comprehensive income (see Note 14).

## 9. INVESTMENTS IN A SUBSIDIARY AND EQUITY SECURITIES

The composition of this account as of December 31, 2022 and 2021 is as follows:

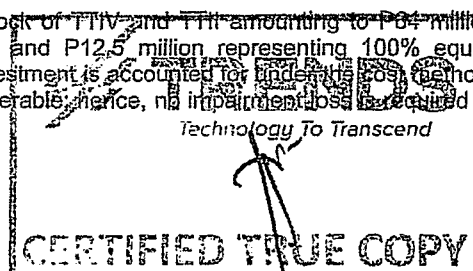
|                            | 2022               | 2021               |
|----------------------------|--------------------|--------------------|
| Financial assets at FVOCI  | 587,571,962        | 589,283,256        |
| Investment in a subsidiary | 76,546,816         | 76,546,816         |
|                            | <b>664,118,778</b> | <b>665,830,072</b> |

The reconciliation of the carrying amounts of financial assets at FVOCI are as follows:

|  | 2022               | 2021               |
|--|--------------------|--------------------|
| Balance at the beginning of year       | 589,283,256        | 686,215,494        |
| Fair value gain (loss) during the year | ( 1,711,294)       | ( 96,932,238)      |
| Balance at end of year                 | <b>587,571,962</b> | <b>589,283,256</b> |

The financial assets at FVOCI pertain to the unquoted equity securities of TGI held by the Company, which represent 16.64% ownership interest. The investment is carried at fair value, which is measured by the Company with reference to the effective share in net assets of TGI (see Note 21.4).

Investment in a subsidiary pertains to the shares of stock of TTIV and TTII amounting to P84 million representing 100% equity ownership interest in TTIV and P12.5 million representing 100% equity ownership interest in TTII. The carrying value of the investment is accounted for under the FOS method. Management assessed that the investment is fully recoverable; hence, no impairment loss is required to be recognized in 2022 and 2021.





10. LOANS PAYABLE

Interest-bearing loans and borrowings are broken down as of December 31 as follows:

|             | 2022               | 2021               |
|-------------|--------------------|--------------------|
| Current     | 649,034,892        | 336,768,551        |
| Non-current | 77,556,372         | 368,390,587        |
| Total       | <u>726,591,264</u> | <u>705,159,138</u> |

The summarized terms and conditions of each loan as at December 31 are as follows:

| Outstanding Balance | Interest Rate  | Nature    | Term       |
|---------------------|----------------|-----------|------------|
| 2022:               |                |           |            |
| 71.6 million        | Fixed at 5.0%  | Unsecured | 2 years    |
| 64.4 million        | Fixed at 5.0%  | Unsecured | 2 years    |
| 46.7 million        | Fixed at 5.58% | Unsecured | 2 years    |
| 43.0 million        | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 34.6 million        | Fixed at 4.87% | Unsecured | 1.25 years |
| 34.6 million        | Fixed at 5.0%  | Unsecured | 2 years    |
| 27.4 million        | Fixed at 6.31% | Unsecured | 2 years    |
| 26.7 million        | Fixed at 5.65% | Unsecured | 2 years    |
| 26.2 million        | Fixed at 6.31% | Unsecured | 2 years    |
| 21.2 million        | Fixed at 5.0%  | Unsecured | 2 years    |
| 20.4 million        | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 19.8 million        | Fixed at 5.54% | Unsecured | 2 years    |
| 18.6 million        | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 18.6 million        | Fixed at 4.45% | Unsecured | 2 years    |
| 16.7 million        | Fixed at 5.46% | Unsecured | 2 years    |
| 16.6 million        | Fixed at 5.0%  | Unsecured | 2 years    |
| 15.8 million        | Fixed at 4.87% | Unsecured | 1.25 years |
| 14.8 million        | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 12.1 million        | Fixed at 6.57% | Unsecured | 2 years    |
| 12.1 million        | Fixed at 5.0%  | Unsecured | 1.25 years |
| 11.5 million        | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 11.5 million        | Fixed at 5.0%  | Unsecured | 3 years    |
| 9.3 million         | Fixed at 5.05% | Unsecured | 2 years    |
| 8.8 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 7.8 million         | Fixed at 5.0%  | Unsecured | 3 years    |
| 7.4 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 7.1 million         | Fixed at 5.0%  | Unsecured | 3 years    |
| 6.9 million         | Fixed at 5.0%  | Unsecured | 1.25 years |
| 6.8 million         | Fixed at 4.45% | Unsecured | 2 years    |
| 6.5 million         | Fixed at 5.05% | Unsecured | 2 years    |
| 5.0 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 4.6 million         | Fixed at 6.31% | Unsecured | 2 years    |
| 4.4 million         | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 4.3 million         | Fixed at 5.46% | Unsecured | 2 years    |
| 4.2 million         | Fixed at 6.57% | Unsecured | 2 years    |
| 4.1 million         | Fixed at 6.31% | Unsecured | 2 years    |
| 3.9 million         | Fixed at 5.46% | Unsecured | 2 years    |
| 3.7 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 3.7 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 3.6 million         | Fixed at 5.05% | Unsecured | 2 years    |
| 3.5 million         | Fixed at 6.57% | Unsecured | 2 years    |
| 3.1 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 2.6 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 2.3 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 2.2 million         | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 2.2 million         | Fixed at 5.0%  | Unsecured | 3 years    |
| 2.1 million         | Fixed at 5.05% | Unsecured | 2 years    |
| 2.1 million         | Fixed at 5.45% | Unsecured | 2 years    |
| 1.9 million         | Fixed at 5.0%  | Unsecured | 1.25 years |
| 1.8 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 1.7 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
| 1.7 million         | Fixed at 5.0%  | Unsecured | 2.5 years  |
| 1.7 million         | Fixed at 5.04% | Unsecured | 2 years    |
| 1.6 million         | Fixed at 5.0%  | Unsecured | 2 years    |



|              | Outstanding Balance | Interest Rate  | Nature    | Term       |
|--------------|---------------------|----------------|-----------|------------|
| <b>2022:</b> |                     |                |           |            |
|              | 1.4 million         | Fixed at 5.58% | Unsecured | 2 years    |
|              | 1.3 million         | Fixed at 5.46% | Unsecured | 2 years    |
|              | 1.2 million         | Fixed at 4.0%  | Unsecured | 1.25 years |
|              | 1.2 million         | Fixed at 5.45% | Unsecured | 2 years    |
|              | .9 million          | Fixed at 5.45% | Unsecured | 2 years    |
|              | .7 million          | Fixed at 5.05% | Unsecured | 2 years    |
|              | .7 million          | Fixed at 5.0%  | Unsecured | 2.5 years  |
|              | .6 million          | Fixed at 4.0%  | Unsecured | 1.25 years |
|              | .5 million          | Fixed at 4.0%  | Unsecured | 1.25 years |
|              | .4 million          | Fixed at 4.0%  | Unsecured | 1 year     |
|              | .2 million          | Fixed at 5.0%  | Unsecured | 2 years    |
|              | Outstanding Balance | Interest Rate  | Nature    | Term       |
| <b>2021:</b> |                     |                |           |            |
|              | 101.8 million       | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 85.9 million        | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 71.6 million        | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 64.4 million        | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 46.0 million        | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 42.7 million        | Fixed at 5.0%  | Unsecured | 3 years    |
|              | 39.5 million        | Fixed at 4.75% | Unsecured | 1.3 years  |
|              | 37.1 million        | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 34.6 million        | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 29.5 million        | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 25.9 million        | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 23.0 million        | Fixed at 5.0%  | Unsecured | 3 years    |
|              | 21.2 million        | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 16.6 million        | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 15.6 million        | Fixed at 5.0%  | Unsecured | 3 years    |
|              | 14.5 million        | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 8.9 million         | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 5.7 million         | Fixed at 5.0%  | Unsecured | 2 years    |
|              | 5.2 million         | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 5.2 million         | Fixed at 5.0%  | Unsecured | 3 years    |
|              | 3.8 million         | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 3.4 million         | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 1.5 million         | Fixed at 5.0%  | Unsecured | 2.6 years  |
|              | 1.2 million         | Fixed at 5.0%  | Unsecured | 2 years    |

These loans were obtained from local banks for the purpose of working capital requirements of the Company.

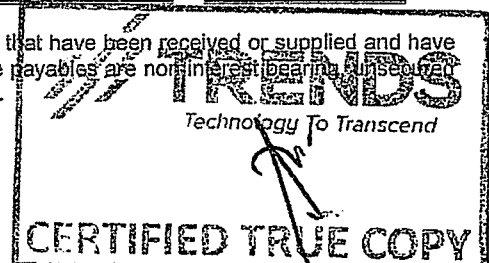
Interest expense on loans payable amounts P 2.1 million in 2022 and P 4.5 million in 2021, and is shown as part of interest expense under Other Income - Net account in the statements of comprehensive income (see Note 14). The related interest payable is presented as part of Accrued expenses under Trade and Other Payables account in the statements of financial position.

**11. TRADE AND OTHER PAYABLES**

This account consists of:

|                                | Notes | 2022                 | 2021                 |
|--------------------------------|-------|----------------------|----------------------|
| <b>Current:</b>                |       |                      |                      |
| Trade payables                 |       | 5,548,317,674        | 5,340,832,668        |
| Due to related parties         | 17.4  | 1,311,368,062        | 2,275,684,732        |
| Deferred output VAT            |       | 242,312,555          | 186,461,341          |
| Payable to government agencies |       | 58,136,117           | 49,669,385           |
| Accrued expenses               |       | 722,924              | 18,331,416           |
| Others                         |       | 103,644,232          | 313,372,578          |
|                                |       | <u>7,264,501,564</u> | <u>8,184,352,120</u> |

Trade payables are liabilities to pay for goods or services that have been received or supplied and have been invoiced or formally agreed with the supplier. Trade payables are non-interest bearing, unsecured and are normally settled on a 30 to 60 days payment term.



Deferred output VAT is the output VAT on sales whose related receivable balance is still outstanding and collectible from the Company's customers.

Accrued expenses include unpaid interest, salaries and other employee benefits and other costs and expenses incurred which are incidental to the Company's operations and are expected to be settled within 12 months from the end of the reporting periods.

Other payables include obligation pertaining to withheld salaries intended as payment for the personal loans of the employees to third party lenders.

12. REVENUES

12.1 Disaggregation of Revenues

The Company derives revenue from the sale of equipment and rendering technology solutions and services (which includes maintenance support and services, and system integration project) in the following major product lines, local geographical regions, and other disaggregation:

|                               | Sale of Equipment    | Technology Solutions and Services | Total                |
|-------------------------------|----------------------|-----------------------------------|----------------------|
| 2022:                         |                      |                                   |                      |
| Timing of revenue recognition |                      |                                   |                      |
| Over time                     | -                    | 8,727,395,665                     | 8,727,395,665        |
| At a point in time            | 1,194,952,795        | -                                 | 1,194,952,795        |
|                               | <u>1,194,952,795</u> | <u>8,727,395,665</u>              | <u>9,922,348,460</u> |
| 2021:                         |                      |                                   |                      |
| Timing of revenue recognition |                      |                                   |                      |
| Over time                     | -                    | 6,764,077,578                     | 6,764,077,578        |
| At a point in time            | 2,301,050,236        | -                                 | 2,301,050,236        |
|                               | <u>2,301,050,236</u> | <u>6,764,077,578</u>              | <u>9,065,127,814</u> |

Revenues arising from rendering maintenance support and services are not presented separately as such source does not represent a significant portion of the Company's revenues.

On the other hand, a substantial portion of the Company's revenues arises from contracts with different government agencies. The disaggregation of the Company's revenues as to customer type is presented below.

|                | 2022                 | 2021                 |
|----------------|----------------------|----------------------|
| Non-government | 8,454,647,641        | 8,488,363,364        |
| Government     | 1,467,700,819        | 576,764,450          |
|                | <u>9,922,348,460</u> | <u>9,065,127,814</u> |

12.2 Contract Balances

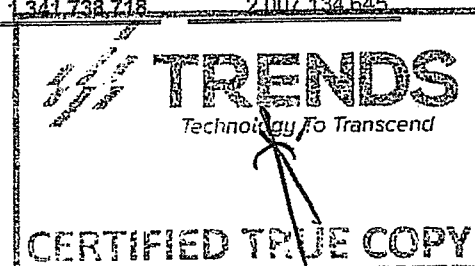
The breakdown of contract balances are as follows:

|                      | 2022               | 2021                 |
|----------------------|--------------------|----------------------|
| Contract assets      | 1,341,738,718      | 2,007,134,645        |
| Contract liabilities | ( 667,422,273)     | ( 810,612,731)       |
|                      | <u>674,316,445</u> | <u>1,196,521,914</u> |

The significant changes in the balances of contract accounts related to contracts with customers are as follows:

|   | 2022                 | 2021                 |
|---|----------------------|----------------------|
| Contract assets                         |                      |                      |
| Balance at beginning of year            | 2,007,134,645        | 1,728,181,267        |
| Net addition/reduction during the year* | ( 665,395,927)       | 278,953,378          |
| Balance at end of year                  | <u>1,341,738,718</u> | <u>2,007,134,645</u> |

\*Not of transfer to trade receivables



|  | 2022               | 2021               |
|--|--------------------|--------------------|
| Contract liabilities                     |                    |                    |
| Balance at beginning of year             | 810,612,731        | 1,661,847,336      |
| Net addition/reduction during the year** | ( 143,190,458)     | ( 851,234,605)     |
| Balance at end of year                   | <u>667,422,273</u> | <u>810,612,731</u> |

\*\*Cash received/loss amount recognized as revenue during the year

Changes in the contract assets and contract liabilities are recognized by the Company when a right to receive payment is already established and upon performance of unsatisfied performance obligation, respectively.

The current and non-current classification of contract assets account as presented in the statements of financial position is shown below.

|             | 2022                 | 2021                 |
|-------------|----------------------|----------------------|
| Current     | 1,100,502,582        | 1,560,630,386        |
| Non-current | <u>241,236,136</u>   | <u>446,504,259</u>   |
|             | <u>1,341,738,718</u> | <u>2,007,134,645</u> |

Contract assets are classified as current if the related contracts are expected to be completed within one year, otherwise the contract balance is classified as noncurrent.

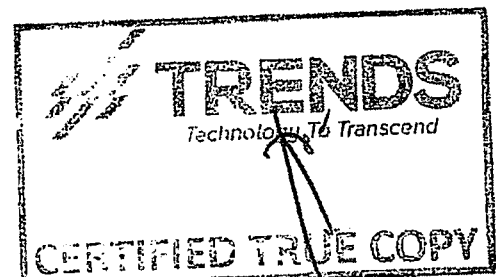
The current and non-current classification of the contract liabilities account as presented in the statements of financial position is shown below.

|             | 2022               | 2021               |
|-------------|--------------------|--------------------|
| Current     | 359,203,577        | 741,726,284        |
| Non-current | <u>308,218,696</u> | <u>68,886,447</u>  |
|             | <u>667,422,273</u> | <u>810,612,731</u> |

### 13. COSTS AND OPERATING EXPENSES BY NATURE

The details of cost and operating expenses by nature are shown below.

|  | Notes      | 2022                 | 2021                 |
|--|------------|----------------------|----------------------|
| Cost of inventories sold               | 6, 17.3    | 7,792,061,944        | 7,050,993,598        |
| Salaries and employee benefits         | 15.1       | 1,014,561,901        | 952,090,845          |
| Outsourced services                    | 17.1       | 331,313,366          | 350,160,525          |
| Depreciation expense                   | 8.1, 8.2   | 82,507,541           | 102,815,016          |
| Taxes and licenses                     | 25f        | 77,269,231           | 68,144,172           |
| Directors' fee                         |            | 51,315,359           | 19,376,781           |
| Transportation and travel              |            | 38,381,543           | 28,253,257           |
| Software license fees                  |            | 31,704,125           | 31,375,142           |
| Communication and utilities            |            | 27,602,893           | 39,001,777           |
| Representation                         |            | 25,083,461           | 8,831,511            |
| Training and seminars                  |            | 24,482,706           | 21,356,376           |
| Retirement Expense                     |            | 20,637,790           | 19,951,766           |
| Advertising and promotions             |            | 13,222,059           | 6,063,605            |
| Penalties and surcharges               |            | 9,172,321            | 25,354,943           |
| Professional fees                      |            | 8,459,245            | 5,995,694            |
| Bonds and biddings                     |            | 7,806,668            | 7,581,769            |
| Dues and subscriptions                 |            | 5,569,349            | 5,243,951            |
| Repairs and maintenance                |            | 4,214,247            | 1,876,285            |
| Rentals                                | 17.2, 19.1 | 3,672,323            | 2,261,056            |
| Impairment losses on receivables       | 5          | 2,352,488            | 72,741,123           |
| Impairment losses on loans receivables | 5          | 2,118,716            | -                    |
| Supplies                               |            | 1,647,260            | 1,118,038            |
| Charitable & Other Contribution        |            | 40,000               | -                    |
| Miscellaneous                          |            | <u>32,728,164</u>    | <u>54,124,126</u>    |
|  |            | <u>9,607,924,700</u> | <u>8,874,711,356</u> |



Expenses are classified in the statements of comprehensive income as follows:

|                    | 2022                 | 2021                 |
|--------------------|----------------------|----------------------|
| Direct costs       | 8,878,268,489        | 8,116,324,170        |
| Operating expenses | 729,656,211          | 758,387,186          |
|                    | <u>9,607,924,700</u> | <u>8,874,711,356</u> |

The details of direct costs in the statements of comprehensive income are as follows:

|                          | Notes    | 2022                 | 2021                 |
|--------------------------|----------|----------------------|----------------------|
| Cost of inventories sold | 6, 17.3  | 7,792,061,944        | 7,050,993,598        |
| Salaries and wages       | 15.1     | 933,628,069          | 909,850,929          |
| Depreciation expense     | 8.1, 8.2 | 62,090,019           | 98,862,938           |
| Others                   |          | 90,488,457           | 56,616,705           |
|                          |          | <u>8,878,268,489</u> | <u>8,116,324,170</u> |

Other direct costs pertain to directly attributable costs incidental to the Company's sales of goods and rendering of services, which includes supplies, freight and handling costs, and others.

**14. OTHER INCOME - NET**

The breakdown of this account is as follows:

|                                       | Notes | 2022               | 2021               |
|---------------------------------------|-------|--------------------|--------------------|
| Interest income                       | 4, 5  | 16,310,998         | 25,130,580         |
| Interest expense on loans             | 10    | ( 2,089,397)       | ( 4,556,974)       |
| Interest expense on lease liabilities | 8.2   | ( 1,041,229)       | ( 1,041,229)       |
| Foreign currency gain - net           |       | 347,046,536        | 90,976,834         |
| Dividend income                       |       | 20,315             | 14,996             |
| Others                                |       | 31,404,855         | 19,974,841         |
|                                       |       | <u>391,652,078</u> | <u>130,489,048</u> |

Other income includes billings made by the Company to its customers for reimbursable expenses.

**15. EMPLOYEE BENEFITS**

**15.1 Salaries and Employee Benefits**

Details of salaries and employee benefits are presented below.

|                                  | Notes | 2022                 | 2021               |
|----------------------------------|-------|----------------------|--------------------|
| Short-term benefits              |       | 993,924,111          | 932,139,079        |
| Post-employment defined benefits | 15.2  | 20,637,790           | 19,951,766         |
|                                  | 13    | <u>1,014,561,901</u> | <u>952,090,845</u> |

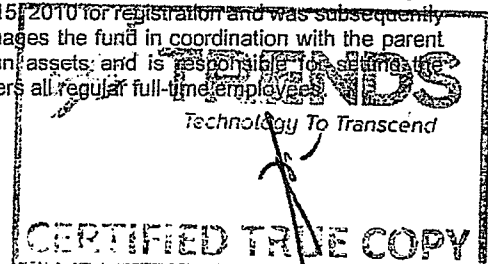
Salaries and employee benefits are classified in the statements of comprehensive income as follows (see Note 13):

|                    | 2022                 | 2021               |
|--------------------|----------------------|--------------------|
| Direct costs       | 933,628,069          | 909,850,929        |
| Operating expenses | 80,933,832           | 42,239,916         |
|                    | <u>1,014,561,901</u> | <u>952,090,845</u> |

**15.2 Post-employment Defined Benefit Asset or Obligation**

**(a) Characteristics of the Defined Benefit Plan**

The parent company has a multi-employer plan covering the Company and other related parties, which is a funded, noncontributory post-employment defined benefit plan in the form of a trust maintained by a trustee bank. The multi-employer plan was submitted by the parent company to the Bureau of Internal Revenue (BIR) on December 15, 2010 for registration and was subsequently approved on June 13, 2012. The trustee bank manages the fund in coordination with the parent company who acts in the best interest of the plan assets, and is responsible for setting the investment policies. The post-employment plan covers all regular full-time employees.



The normal retirement age is 60 with a minimum of 5 years of credited service. The plan also provided for an early retirement at age of 50 with a minimum of 10 years of accredited service and late retirement after age 65, both subject to the approval of the Company. Normal retirement benefit is an amount equivalent to 100% of plan salary for every year of credited service.

(b) *Explanation of Amounts Presented in the Financial Statements*

Actuarial valuations are made annually to update the defined benefit plan. All amounts presented below and in the succeeding pages are based on the actuarial valuation report obtained from an independent actuary in 2022 and 2021.

The amounts of retirement benefit obligation (asset) recognized in the statements of financial position are determined as follows:

|                             | 2022              | 2021              |
|-----------------------------|-------------------|-------------------|
| Present value of obligation | 245,091,392       | 248,475,260       |
| Fair value of plan assets   | ( 179,220,318)    | ( 183,298,641)    |
| Defined Benefit Liability   | <u>65,871,074</u> | <u>65,176,619</u> |

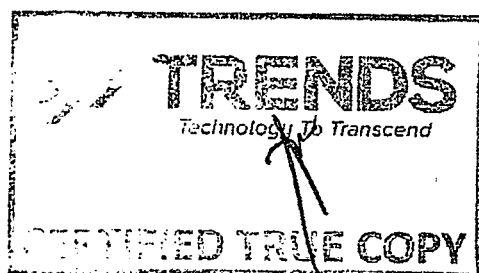
The movements in the present value of the post-employment defined benefit obligation recognized in the books follow:

|                                    | 2022               | 2021               |
|------------------------------------|--------------------|--------------------|
| Balance at beginning of year       | 248,475,260        | 243,074,166        |
| Current service cost               | 17,470,206         | 17,906,039         |
| Interest cost                      | 12,075,898         | 8,507,596          |
| Benefits paid                      | ( 6,843,113)       | ( 1,425,702)       |
| Remeasurements -                   |                    |                    |
| Actuarial gains arising from:      |                    |                    |
| Changes in financial assumptions   | ( 44,870,417)      | ( 31,501,913)      |
| Changes in demographic assumptions | -                  | -                  |
| Experience adjustments             | 18,783,558         | 11,915,074         |
| Balance at end of year             | <u>245,091,392</u> | <u>248,475,260</u> |

The movements in the fair value of plan assets is as follows:

|                              | 2022               | 2021               |
|------------------------------|--------------------|--------------------|
| Balance at beginning of year | 183,298,641        | 184,624,816        |
| Interest income              | 8,908,314          | 6,461,869          |
| Benefits paid                | ( 6,843,113)       | ( 1,425,702)       |
| Return on plan assets        | ( 6,143,524)       | ( 6,362,342)       |
| Contributions                | -                  | -                  |
| Balance at end of year       | <u>179,220,318</u> | <u>183,298,641</u> |

The plan assets at the end of the reporting periods are invested in special deposit account to maximize interest income earnings. As of December 31, 2022 and 2021, none of the funds were invested in securities, stocks, bonds, real estate properties, and other financial instruments or commercial papers. There are no transactions and/or outstanding balances of fund, in the form of loans, investment, lease guaranty or surety, with the Company or any of its related parties.



The components of amounts recognized in profit or loss and in other comprehensive income in respect of the defined benefit plan are presented below.

|   | 2022              | 2021              |
|---|-------------------|-------------------|
| <i>Recognized in profit or loss:</i>                    |                   |                   |
| Current service cost, including net transfers           | 17,470,206        | 17,906,039        |
| Net interest expense (income)                           | 3,167,584         | 2,045,727         |
|   | <u>20,637,790</u> | <u>19,951,766</u> |
| <i>Recognized in other comprehensive income (loss):</i> |                   |                   |
| Actuarial gains (losses) arising from changes in:       |                   |                   |
| Financial assumptions                                   | 44,870,417        | 31,501,913        |
| Demographic assumptions                                 | -                 | -                 |
| Experience adjustments                                  | ( 18,783,558)     | ( 11,915,074)     |
| Return (loss) on plan assets                            | ( 6,143,524)      | ( 6,362,342)      |
|   | <u>19,943,335</u> | <u>13,224,497</u> |

Current service cost is presented as part of Salaries and employee benefits (see Notes 13 and 15.1).

Amounts recognized in other comprehensive income is included and presented as item that will not be reclassified subsequently to profit or loss.

In determining the post-employment defined benefit obligation, the following actuarial assumptions were used:

|                      | 2022  | 2021  |
|----------------------|-------|-------|
| Discount rate        | 7.00% | 4.86% |
| Salary increase rate | 5.00% | 5.00% |

Assumptions regarding future mortality are based on published statistics and mortality tables. The average remaining working life of an individual retiring at the age of 60 is 32. These assumptions were developed by management with the assistance of an independent actuary. Discount factors are determined close to the end of each reporting period by reference to the interest rates of zero coupon government bonds with terms to maturity approximating to the terms of the post-employment defined benefit plan. Other assumptions are based on current actuarial benchmarks and management's historical experience.

(c) *Risk Associated with the Retirement Plan*

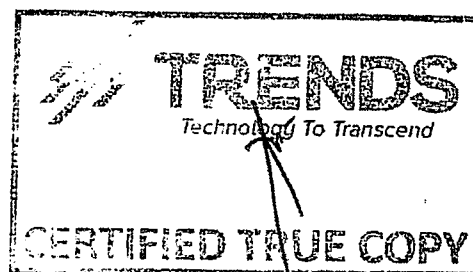
The plan exposes the Company to actuarial risks such as investment risk, interest rate risk, longevity risk and salary risk.

(i) *Investment and Interest Risk*

The present value of the defined benefit obligation is calculated using a discount rate determined by reference to market yields of government bonds. Generally, a decrease in the interest rate of reference government bonds will increase the plan obligation. However, this will be partially offset by an increase in the return on the plan's investment in a special deposit account and if the return on plan asset falls below this rate, it will create a deficit in the plan.

(ii) *Longevity and Salary Risks*

The present value of the post-employment defined benefit obligation is calculated by reference to the best estimate of the mortality of the plan participants during their employment and to their future salaries. Consequently, increases in the life expectancy and salary of the plan participants will result in an increase in the obligation.



(d) *Other Information*

The information on the sensitivity analysis for certain significant actuarial assumptions and the timing and uncertainty of future cash flows related to the retirement plan are described below.

(i) *Sensitivity Analysis*

The following table summarizes the effects of changes in the significant actuarial assumptions used in the determination of the retirement benefit asset (obligation) as of December 31:

|               | <u>Impact on Retirement Benefit Obligation</u> |                               |                               |
|---------------|--|-------------------------------|-------------------------------|
|               | <u>Change in Assumption</u>                    | <u>Increase in Assumption</u> | <u>Decrease in Assumption</u> |
| <u>2022</u>   |  |                               |                               |
| Discount rate | ±/-1%  | ( 17,219,017)                 | 19,391,621                    |
| Salary rate   | ±/-1%  | 19,650,687                    | 17,887,442                    |
| <u>2021</u>   |  |                               |                               |
| Discount rate | +/-1%  | ( 19,780,676)                 | 22,634,633                    |
| Salary rate   | +/-1%  | 22,326,017                    | ( 19,977,093)                 |

The sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. This analysis may not be representative of the actual change in the post-employment defined benefit plan as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated. Furthermore, in presenting the sensitivity analysis, the present value of the post-employment defined benefit obligation has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the post-employment defined benefit plan recognized in the statements of financial position.

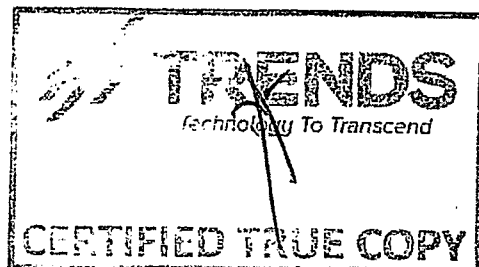
The methods as types of assumptions used in preparing the sensitivity analysis did not change compared to previous year.

(ii) *Funding Arrangements and Expected Contributions*

The expected maturity of undiscounted expected benefits payments within the next 10 years is as follows:

|                                  | <u>2022</u>        | <u>2021</u>        |
|----------------------------------|--------------------|--------------------|
| Within one year                  | 23,108,888         | 15,591,758         |
| More than one year to five years | 108,447,460        | 96,871,885         |
| More than five years to 10 years | 206,406,056        | 170,607,390        |
|                                  | <u>337,962,404</u> | <u>283,071,033</u> |

The weighted average duration of the post-employment defined benefit obligation at the end of the reporting period is 11 years.





16. INCOME TAXES, DEFERRED TAX

a. Income tax benefit (expense)

The components of tax expense as reported in profit or loss and in other comprehensive income follow:

|   | <u>2022</u>           | <u>2021</u>          |
|---|-----------------------|----------------------|
| <i>Reported in profit or loss</i>   |                       |                      |
| Current tax expense:  |                       |                      |
| Regular corporate income tax (RCIT) at applicable rate                                      | ( 190,526,576)        | ( 82,837,833)        |
| Deferred tax expense:   |                       |                      |
| Adjustment on income tax provision – CREATE   | -                     | ( 1,471,635)         |
| Deferred tax expense (income) relating to origination and reversal of temporary difference  | <u>8,508,707</u>      | <u>( 697,808)</u>    |
|   | <u>8,508,707</u>      | <u>( 2,169,443)</u>  |
|   | <u>( 182,017,869)</u> | <u>( 85,007,276)</u> |
| <br><i>Reported in other comprehensive income</i>   |                       |                      |
| Deferred tax benefit (expense) relating to origination and reversal of temporary difference | <u>( 4,729,140)</u>   | <u>11,233,711</u>    |

The reconciliation of tax expense on pretax profit computed at the statutory rate to tax expense reported in profit or loss is as follows:

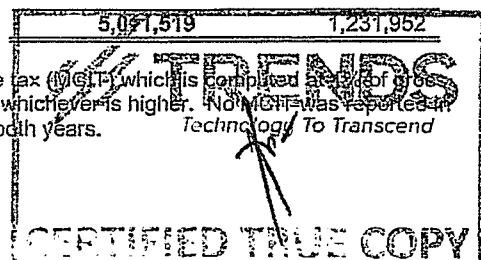
|   | <u>2022</u>           | <u>2021</u>          |
|---|-----------------------|----------------------|
| Tax on pretax profit at applicable rate     | ( 176,518,959)        | ( 80,226,376)        |
| Tax effects of:                             |                       |                      |
| Non-deductible expenses                     | ( 6,262,055)          | ( 18,577,985)        |
| Non-taxable income                          | 3,604,834             | 8,643,616            |
| Adjustment on income tax provision – CREATE | -                     | ( 1,471,635)         |
| Reversals of temporary difference           | <u>( 2,841,689)</u>   | <u>6,625,104</u>     |
|   | <u>( 182,017,869)</u> | <u>( 85,007,276)</u> |

b. Deferred tax assets, net

The deferred tax assets, net reflected under non-current assets in the statements of financial position is as follows:

|   | <u>2022</u>          | <u>2021</u>          |
|---|----------------------|----------------------|
| <b>Deferred tax assets (liabilities)</b>                |                      |                      |
| <i>Deferred tax assets:</i>                             |                      |                      |
| Impairment losses on trade and other receivables        | 37,279,882           | 36,691,760           |
| Retirement benefit obligation                           | 16,467,770           | 16,294,156           |
| Past service cost                                       | 5,554,972            | 7,866,108            |
| Provision for inventory obsolescence                    | 10,993,134           | 10,993,134           |
| Leases  | 2,860,411            | 2,732,371            |
| Subtotal  | <u>73,156,169</u>    | <u>74,577,529</u>    |
| <br><i>Deferred tax liabilities:</i>                    |                      |                      |
| Unrealized fair value gain on financial assets at FVOCI | ( 31,578,491)        | ( 31,835,185)        |
| Unrealized foreign currency gains                       | ( 36,566,158)        | ( 41,510,392)        |
| Subtotal  | <u>( 68,144,649)</u> | <u>( 73,345,577)</u> |
| <b>Total</b>  | <u>5,011,519</u>     | <u>1,231,952</u>     |

The Company is subject to minimum corporate income tax (MCIT) which is computed as 2% of taxable income, as defined under the tax regulations or RCIT, whichever is higher. No MCIT was reported in 2022 and 2021 as the RCIT was higher than MCIT in both years.



c. **Optional standard deduction**

Effective July 2008, Republic Act 9504 was approved giving the corporate taxpayers an option to claim itemized deductions or optional standard deductions (OSD) equivalent to 40% of gross income. Once the option to use OSD is made, it shall be irrevocable for the taxable year for which the option was made.

In 2022 and 2021, the Company opted to claim itemized deductions.

d. **CREATE Act**

On March 26, 2021, the President of the Philippines signed into law the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act to attract more investments and maintain fiscal prudence and stability in the Philippines. The Republic Act (RA) 11534 or the CREATE Act introduces reforms to the corporate income tax and incentives systems. The bill was published in a newspaper of general circulation on March 27, 2021, and became effective on April 11, 2021, which is 15 days after its publication.

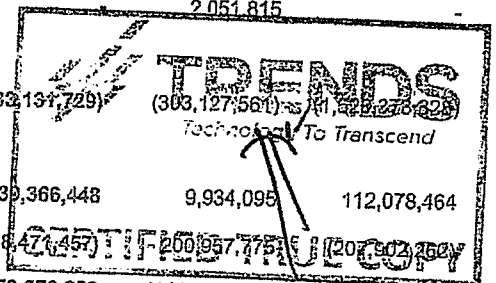
The key changes to the Philippine tax law pursuant to the CREATE Act which have an impact on the Company is that effective July 1, 2020, the regular corporate income tax (RCIT) rate is reduced from 30% to 25% for domestic and resident foreign corporations. For domestic corporations with net taxable income not exceeding Php5 million and with total assets not exceeding Php100 million (excluding land on which the business entity's office, plant and equipment are situated) during the taxable year, the RCIT rate is reduced to 20%.

The income tax rate used in preparing the financial statements for the years ended December 31, 2022 and 2021 is 25%.

17. **RELATED PARTY TRANSACTIONS**

The Company's related parties include its parent company, entities under common ownership and others as described below. The following are the relevant transactions of the Company with its related parties:

| Related Party Category  | Notes    | 2022                  |                     | 2021                  |                     |
|---|----------|-----------------------|---------------------|-----------------------|---------------------|
|   |          | Amount of Transaction | Outstanding Balance | Amount of Transaction | Outstanding Balance |
| <b>Parent Company:</b>  |          |                       |                     |                       |                     |
| Outsourced services   | 17.1     | 307,844,002           | -                   | 329,862,994           | -                   |
| Due to related parties (Accounts payable – outsourced services)             | 17.4     | 410,225,363           | (128,054,817)       | (538,280,180)         | (538,280,180)       |
| Due to related parties (Advances obtained)                                  | 17.4     | (2,475,658)           | (3,501,277)         | (1,025,618)           | (1,025,618)         |
| Due from related parties (Advances granted)                                 | 17.4     | 760,557,525           | 1,346,636,294       | (263,285,681)         | 586,078,769         |
| Due from related parties (Accounts receivable)                              | 17.4     | 34,828                | 360,394             | (29,619)              | 325,566             |
| Rentals   | 17.2     | 3,421,073             | -                   | 1,833,763             | -                   |
| Right-of-use asset  | 8.2,17.2 | (13,531,771)          | 49,898,674          | 94,054,896            | 63,430,445          |
| Lease liability   | 8.2,17.2 | 13,016,123            | (62,690,401)        | (34,664,746)          | (75,706,524)        |
| <b>Related Parties Under Common Ownership:</b>                              |          |                       |                     |                       |                     |
| Purchase of goods and services  | 17.3     | 458,551,327           | -                   | 700,783,850           | -                   |
| Sale of goods and services  | 17.3     | 22,647,190            | -                   | 2,051,815             | -                   |
| Due to related parties (Accounts payable – purchase of goods and services)  | 17.4     | 945,242,099           | (582,131,729)       | (303,127,561)         | (1,414,226,822)     |
| Due from related parties (Accounts receivable – sale of goods and services) | 17.4     | 127,287,984           | 239,366,448         | 9,934,095             | 112,078,464         |
| Due to related parties (Advances obtained)                                  | 17.4     | (30,569,195)          | (238,471,457)       | (200,957,775)         | (207,802,260)       |
| Due from related parties (Advances granted)                                 | 17.4     | 34,202,983            | 159,076,386         | (111,272,129)         | 124,873,403         |
| <b>Related Parties Under Shareholders:</b>                                  |          |                       |                     |                       |                     |
| Due from related parties (Advances granted)                                 | 17.4     | 819,284,498           | 1,515,806,890       | 240,905,393           | 696,522,392         |
| Due to related parties (Advances obtained)                                  | 17.4     | (358,105,938)         | (358,208,782)       | (102,844)             | (102,844)           |



The outstanding balances from these transactions are generally payable in cash on demand, unsecured and noninterest-bearing. Due to the short duration of the receivables and payables to related parties, management considers their carrying amounts to be a reasonable approximation of their fair values.

**17.1 Services from TGI**

TGI provides services to the Company. These services are presented as part of Outsourced services under Operating Expenses account in the statements of comprehensive income (see Note 13). The outstanding balance, which is payable in cash on demand, unsecured and noninterest-bearing, related to these transactions as of December 31, 2022 and 2021 are presented as part of Due to related parties under Trade and Other Payables account in the statements of financial position (see Note 11).

**17.2 Rentals**

The Company occupies certain floors in the units owned by TGI. On January 1, 2019, the Company adopted PFRS 16 and recognized a lease liability and a related right-of-use asset in one of the Company's leases with TGI [see Note 2.12]. The rent incurred by the Company on short-term leases is presented as part of Rentals under Operating Expenses account in the statements of comprehensive income (see Notes 13 and 19.1). There are no outstanding liabilities relating to these short-term leases and operating lease contracts as of December 31, 2022 and 2021, respectively.

**17.3 Purchases and Sale of Goods and Services**

The Company purchases certain inventories from its related parties under common ownership at market prices which are recognized as part of Costs of inventories sold under Direct Costs account in the statements of comprehensive income (see Note 13). The outstanding balance, which is payable in cash on demand, unsecured and noninterest-bearing, from these transactions as of December 31, 2022 and 2021 are presented as part of Due to related parties under Trade and Other Payables account in the statements of financial position.

The Company also sold certain inventories to its related parties under common ownership at market prices which are recognized as part of Revenues in the statements of comprehensive income. There are no outstanding receivables related to these transactions as of December 31, 2022 and 2021.

**17.4 Due from and to Related Parties**

The Company transferred funds to its parent company and related parties under common ownership for working capital purposes. These advances are noninterest-bearing, unsecured and have no definite repayment terms. The net outstanding balances of advances to and from related parties as of December 31, 2022 and 2021 are netted against the outstanding payables or receivables of the Company for each related parties and are presented as part of either Due from related parties under Trade and Other Receivables account or Due to related parties under Trade and Other Payables account in the statements of financial position (see Notes 5 and 11).

The changes in Due from Related Parties account are shown below.

|                              | 2022                 | 2021                 |
|------------------------------|----------------------|----------------------|
| Balance at beginning of year | 1,519,878,594        | 1,643,626,534        |
| Additions                    | 1,798,896,881        | 689,685,443          |
| Repayments                   | ( 57,529,063)        | ( 813,433,383)       |
| Offsetting                   | -                    | -                    |
| Balance at end of year       | <u>3,261,246,412</u> | <u>1,519,878,594</u> |

The changes in Due to Related Parties account are shown below.

|                              | 2022                 | 2021                 |
|------------------------------|----------------------|----------------------|
| Balance at beginning of year | 2,275,684,732        | 1,660,801,302        |
| Additions                    | 514,686,852          | 2,735,693,058        |
| Repayments                   | ( 1,479,003,522)     | ( 2,120,809,628)     |
| Offsetting                   | -                    | -                    |
| Balance at end of year       | <u>1,311,368,062</u> | <u>2,275,684,732</u> |



**17.5 Key Management Personnel Compensation**

The Company has no key management personnel. The management and administrative function is being handled by TGI for which the Company is being charged for a consideration that is presented as part of Outsourced services under Operating Expenses account in the statements of comprehensive income (see Notes 13 and 17.1). There are no outstanding balances from these transactions as of December 31, 2022 and 2021.

**17.6 Retirement Plan**

The Company's retirement fund for its retirement benefit plan is administered by a trustee bank. Note 15.2 presents the details of the plan assets, its movements, fair value, and composition as of December 31, 2022 and 2021.

**18. EQUITY**

**18.1 Capital Stock**

The details of the Company's capital stock as at December 31 are as follows:

|                              | Shares               |                      | Amounts              |                        |
|------------------------------|----------------------|----------------------|----------------------|------------------------|
|                              | 2022                 | 2021                 | 2022                 | 2021                   |
| Common stock – P1 par value  |                      |                      |                      |                        |
| Authorized                   | <u>2,500,000,000</u> | <u>2,500,000,000</u> | <u>2,500,000,000</u> | <u>P 2,500,000,000</u> |
| Issued and outstanding       |                      |                      |                      |                        |
| Balance at beginning of year | 1,875,000,001        | 1,875,000,000        | 1,875,000,001        | P1,875,000,000         |
| Issuance of share            | -                    | 1                    | -                    | 1                      |
| Balance at end of year       | <u>1,875,000,001</u> | <u>1,875,000,001</u> | <u>1,875,000,001</u> | <u>P1,875,000,001</u>  |

On February 26, 2021, the Company declared cash dividends out of the Company's unrestricted accumulated profits amounting to P 83,000,000 to existing shareholders as of date of record which is February 23, 2021. In February 24, 2021, the Company has paid the P 83,000,000 cash dividend.

On August 1, 2021, the Company declared cash dividends out of the Company's unrestricted accumulated profits amounting to P 52,000,000 to existing shareholders as of date of record which is June 30, 2021. In August 25, 2021, the Company has paid the P 52,000,000 cash dividend.

On February 21, 2022, the Company declared cash dividends out of the Company's unrestricted accumulated profits amounting to P 67,000,000 to existing shareholders as of date of record which is February 9, 2022. In February 26, 2022, the Company has paid the P 67,000,000 cash dividend.

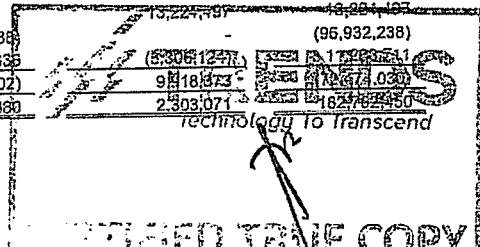
On March 18, 2022, the Company declared cash dividends out of the Company's unrestricted accumulated profits amounting to P 104,334,000 to existing shareholders as of date of record which is March 18, 2022. In March 25, 2022, the Company has paid the P 104,334,000 cash dividend.

As of December 31, 2022 and 2021, the Company has six shareholders owning 100 or more shares each of the Company's capital stock.

**18.2 Revaluation Reserves**

The components and reconciliation of items of other comprehensive income presented in the statements of changes in equity under Revaluation Reserves account, are shown below.

|   | Financial Assets at FVOCI (see Note 9) | Retirement Benefit Obligation (see Note 15) | Total              |
|---|--|---|--------------------|
| Balance as of January 1, 2022                   | 180,399,380                            | 2,303,071                                   | 182,702,450        |
| Remeasurements of retirement benefit obligation | -                                      | 19,943,335                                  | 19,943,335         |
| Fair value loss on financial assets at FVOCI    | (1,711,294)                            | -   | (1,711,294)        |
| Tax income (expense)                            | 256,694                                | (4,985,834)                                 | (4,729,140)        |
| Other comprehensive income after tax            | (1,454,600)                            | 14,957,501                                  | 13,502,901         |
| Balance as of December 31, 2022                 | <u>178,944,780</u>                     | <u>17,260,572</u>                           | <u>196,205,351</u> |
| Balance as of January 1, 2021                   | 262,791,782                            | (7,615,302)                                 | 255,176,480        |
| Remeasurements of retirement benefit obligation | (96,932,238)                           | -   | (96,932,238)       |
| Fair value loss on financial assets at FVOCI    | 14,539,835                             | (5,306,124)                                 | 9,233,711          |
| Tax income (expense)                            | (82,392,402)                           | 9,183,733                                   | (73,208,669)       |
| Other comprehensive income after tax            | 180,399,380                            | 2,903,071                                   | 183,302,450        |
| Balance as of December 31, 2021                 | <u>180,399,380</u>                     | <u>2,903,071</u>                            | <u>183,302,450</u> |



## 19. COMMITMENTS AND CONTINGENCIES

The following are the significant commitments and contingencies involving the Company:

### 19.1 Operating Lease – Company as a Lessee

The Company is a lessee under non-cancellable operating leases covering the premises it uses for its office space (see Note 17.2). The lease has a term of one to three years, with renewal options. The future fixed guaranteed rental payments are payable over the lease term.

Total rentals from these operating leases for the year ended December 31, 2022 and 2021 amounts P3.6 million and P2.2 million, respectively (see Note 13). The Company paid rental deposits related to these leases amounting to P 1.16 million and P 1.05 million as at December 31, 2022 and 2021, respectively, and is presented as Security deposits under Other Non-Current Assets account in the statements of financial position (see Note 7).

### 19.2 Others

The Company is contractually committed to restrict certain amount of cash funds as a bond in case of future defects related to projects rendered to customers. The Company restricted cash amounting to P61.4 million and P50.9 million as of December 31, 2022 and 2021, respectively (see Notes 4 and 7).

There are other commitments, guarantees and contingent liabilities that may arise in the normal course of the Company's operations which are not reflected in the financial statements. As of December 31, 2022 and 2021, management is of the opinion that losses, if any, from these commitments and contingencies will not have material effects on the Company's financial statements taken as a whole.

## 20. RISK MANAGEMENT OBJECTIVES AND POLICIES

The main purpose of the Company's principal financial instruments is to fund its operational and capital expenditures. The Company's risk management is coordinated and in close cooperation with the BOD, and focuses on actively securing the Company's short- to medium-term cash flows by minimizing the exposure to financial markets. Long-term financial investments are managed to generate lasting returns. The Company does not actively engage in the trading of financial assets for speculative purposes nor does it write options. The Company's overall risk management program seeks to minimize potential adverse effects on the financial performance of the Company. The relevant financial risks to which the Company is exposed to and the policies for managing these risks are described in the succeeding pages.

### 20.1 Foreign Currency Sensitivity

Most of the Company's transactions are carried out in Philippine peso (PHP), its functional currency. Exposures to currency exchange rates arise from the Company's certain items under cash and cash equivalents and payables arising from overseas purchases, which are denominated in United States Dollars (USD).

To mitigate the Company's exposure to foreign currency risk, non-Philippine peso cash flows are monitored.

Exposures to foreign exchange rates vary during the year depending on the volume of overseas transactions. Nonetheless, the analysis above is considered to be representative of the Company's currency risk.

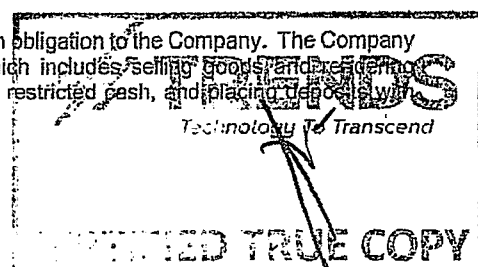
### 20.2 Interest Rate Risk

Interest rate risk is the risk that the value of a financial instrument will fluctuate because of changes in market interest rates.

The Company's management policy on interest rate exposure enters on reducing the Company's overall interest expense and exposure to changes in interest rates. As of December 31, 2022 and 2021, there was no significant interest rate risk because the Company's interest-bearing loans and borrowings have fixed interest rates (see Note 10); while for cash in banks and cash equivalents wherein interest rate fluctuated in 2022 (see Note 4), the financial impact is considered negligible.

### 20.3 Credit Risk

Credit risk is the risk that a counterparty may fail to discharge an obligation to the Company. The Company is exposed to this risk for various financial instruments, which includes selling goods and rendering services to customers and other counterparties, committing a restricted cash, and placing deposits in banks and other counterparties.



The Company continuously monitors defaults of customers and other counterparties, identified either individually or by group, and incorporate this information into its credit risk controls.

The Company manages the level of credit risk it accepts through comprehensive credit risk policy setting out assessment and determination of what constitutes credit risks for the Company; setting up exposures limits by each counterparty or group of counterparties, geographical and industry segment; guidelines on obtaining collateral and guarantees; reporting credit risk exposures and breaches to the monitoring authority; monitoring compliance with credit risk policy and review of credit risk policy for pertinence and changing environment.

Receivable balances are being monitored on a regular basis to ensure timely execution of necessary intervention efforts.

Where available at a reasonable cost, external credit ratings and/or reports on customers and other counterparties are obtained and used. The Company's policy is to deal only with creditworthy counterparties.

Generally, the maximum credit risk exposure of financial assets is the carrying amount of the financial assets as shown in the statements of financial position (or in the detailed analysis provided in the notes to the financial statements) as summarized below. The Company's net contract assets are also subject to credit risk.

|                                      | Notes | 2022                 | 2021                 |
|--------------------------------------|-------|----------------------|----------------------|
| Cash and cash equivalents            | 4     | 1,474,698,646        | 3,948,627,051        |
| Trade and other receivables – gross* | 5     | 7,042,871,728        | 4,326,527,034        |
| Contract assets, net                 | 12.2  | 674,316,445          | 1,196,521,914        |
| Restricted cash                      | 7     | 61,448,666           | 50,892,823           |
| Security deposits                    | 7     | 1,169,615            | 1,050,465            |
| Refundable bonds                     | 7     | 4,367,953            | 3,935,237            |
|                                      |       | <u>9,258,873,053</u> | <u>9,527,554,524</u> |

\*Excluding receivables from officers and employees

None of the Company's financial assets are secured by collateral or other credit enhancements, except for cash and cash equivalents and restricted cash as described in the succeeding paragraph.

(a) *Cash and Cash equivalents and Restricted Cash*

The credit risk for cash and cash equivalents, restricted cash and refundable bonds is considered negligible, since the counterparties are reputable banks with high quality external credit ratings. These are insured by the Philippine Deposit Insurance Corporation up to a maximum coverage of P500,000 per depositor per banking institution.

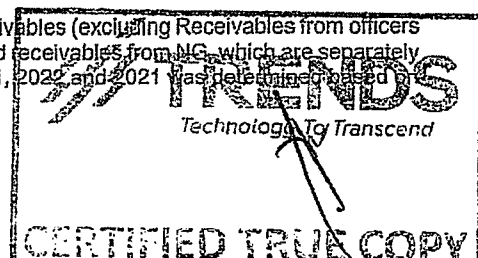
(b) *Trade and Other Receivables and Contract Assets*

The Company applies the simplified approach in measuring ECL which uses a lifetime expected loss allowance for trade receivables (including contract assets), other than the receivables from Non-Government (NG) and due from related parties.

To measure the ECL, trade receivables and other receivables have been grouped based on shared credit risk characteristics and the days past due (age buckets). The trade receivables relate mostly to receivables from third parties and NG arising from sale of equipment, rendering maintenance support and services, and system integration projects. The Company assessed that the expected loss rates for these financial assets are a reasonable approximation of the loss rates for other receivables.

The expected loss rates on trade receivables (except those from NG) are based on the payment and aging profiles of such receivables over a period of 12 months and 48 months before December 31, 2022 and 2021, respectively, and the corresponding historical credit losses experienced within such period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. The Company has identified retail price index and inflation to be the most relevant factors as at December 31, 2022 and 2021, respectively, and accordingly, adjusts the historical loss rates based on expected changes in these factors.

On that basis, the loss allowance for trade and other receivables (excluding Receivables from officers and employees, which are considered non-financials; and receivables from NG, which are separately assessed below) and contract assets as at December 31, 2022 and 2021 was determined based on 12 months past due.



With respect to trade receivables from NG, the Company assessed the ECL based on the latest external credit rating provided by Standard & Poor's (S&P) for the Philippines, which evaluates current and historical information and assesses the potential impact of foreseeable future events as basis for the credit ratings. Management used S&P's rating of "BBB". Such rating resulted to a negligible loss allowance as of December 31, 2022 and 2021, and therefore no longer recognized.

For due from related parties that is repayable on demand, the ECL is based on the assumption that repayment of the loan is demanded at the reporting date. The management determines the probability of collection upon demand. If the related party is unable to make repayment, the management considers the manner of recovery to measure the ECL. On that basis, no impairment losses were recognized since the related party has the ability to pay the outstanding balance as of the reporting periods.

Management has assessed that there is low probability of default with regard to security deposits since the Company has continuing operating lease with the counterparties, and the deposit can be applied against future rentals.

The Company identifies a default when the receivables become credit impaired or when the customer has not able to settle the receivables beyond the normal credit terms; hence, these receivables were already considered as past due on its contractual payment. In addition, the Company considers qualitative assessment in determining default such as in instances where the customer is unlikely to pay its obligations and is deemed to be in significant financial difficulty.

A reconciliation of the allowance for ECL as of the end of the reporting periods to the opening loss allowance is presented in Note 5.

(c) *Security Deposits and Refundable Bonds*

Credit risk for security deposits and refundable bonds is considered negligible to the Company's financial statements.

**20.4 Liquidity Risk**

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company manages its liquidity needs by forecasting projected cash flows and maintaining balance between continuity of funding and flexibility of operations. Treasury controls and procedures are in place to ensure that sufficient cash is maintained to cover daily operational and working capital requirements. Management closely monitors the Company's future and contingent obligations and setups required cash reserves as necessary in accordance with internal requirements. Funding for long-term liquidity needs is additionally secured by an adequate amount of committed credit facilities.

The Company's financial liabilities have contractual maturities which are presented below.

|                            | Current              |                      |                  | Non-current        |
|----------------------------|----------------------|----------------------|------------------|--------------------|
|                            | Upon Demand          | Within 6Months       | 6 to 12 Months   | 1 to 5 Years       |
| <b>December 31, 2022:</b>  |                      |                      |                  |                    |
| Trade and other payables * | -                    | 5,652,684,830        | -                | -                  |
| Due to related parties     | 1,311,368,062        | -                    | -                | -                  |
| Lease liabilities          | -                    | 8,194,359            | 8,194,359        | 46,301,683         |
| Loans payable              | -                    | 649,034,892          | -                | 77,556,372         |
|                            | <u>1,311,368,062</u> | <u>6,309,914,081</u> | <u>8,194,359</u> | <u>123,858,055</u> |
| <b>December 31, 2021:</b>  |                      |                      |                  |                    |
| Trade and other payables * | -                    | 5,672,536,662        | -                | -                  |
| Due to related parties     | 2,275,684,732        | -                    | -                | -                  |
| Lease liabilities          | -                    | 8,194,359            | 8,194,359        | 59,317,806         |
| Loans payable              | -                    | 336,768,551          | -                | 368,390,587        |
|                            | <u>2,275,684,732</u> | <u>6,017,499,572</u> | <u>8,194,359</u> | <u>427,708,393</u> |

\*Excluding due to related parties, deferred output VAT and payable to government payables



21. CATEGORIES AND OFFSETTING OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES

21.1 Carrying Amounts and Fair Values by Category

The carrying amounts and fair values of the categories of financial assets and financial liabilities presented in the statements of financial position as of December 31 are shown below.

|                                    | Notes | 2022                 |                      | 2021                 |                      |
|------------------------------------|-------|----------------------|----------------------|----------------------|----------------------|
|                                    |       | Carrying Values      | Fair Values          | Carrying Values      | Fair Values          |
| <b>Financial assets:</b>           |       |                      |                      |                      |                      |
| Cash and cash equivalents          | 4     | 1,474,698,646        | 1,474,698,646        | 3,948,627,051        | 3,948,627,051        |
| Trade and other receivables – net* | 5     | 6,894,547,077        | 6,894,547,077        | 4,181,177,956        | 4,181,177,956        |
| Restricted cash                    | 7     | 61,448,666           | 61,448,666           | 50,892,823           | 50,892,823           |
| Security deposits                  | 7     | 1,169,615            | 1,169,615            | 1,050,465            | 1,050,465            |
| Refundable bonds                   | 7     | 4,367,953            | 4,367,953            | 3,935,237            | 3,935,237            |
|                                    |       | <b>8,436,231,957</b> | <b>8,436,231,957</b> | <b>8,185,683,532</b> | <b>8,185,683,532</b> |
| Financial asset at FVOCI           | 9     | <b>587,571,962</b>   | <b>587,571,962</b>   | <b>589,283,256</b>   | <b>589,283,256</b>   |
| <b>Financial liabilities:</b>      |       |                      |                      |                      |                      |
| Loans payable                      | 10    | 726,591,264          | 726,591,264          | 705,159,138          | 705,159,138          |
| Trade and other payables**         | 11    | 5,652,684,830        | 5,652,684,830        | 5,672,536,662        | 5,672,536,662        |
| Due to related parties             | 17    | 1,311,368,062        | 1,311,368,062        | 2,275,684,732        | 2,275,684,732        |
| Lease liabilities                  | 8     | 62,690,401           | 62,690,401           | 75,706,524           | 75,706,524           |
|                                    |       | <b>7,753,334,557</b> | <b>7,753,334,557</b> | <b>8,729,087,056</b> | <b>8,729,087,056</b> |

\*Excluding receivables from employees

\*\*Excluding due to related parties, deferred output VAT and payable to government payables

See Notes 2.4 and 2.8 for a description of the accounting policies for each category of financial instrument. A description of the Company's risk management objectives and policies for financial instruments is provided in Note 20.

21.2 Offsetting of Financial Assets and Financial Liabilities

The Company has not set-off any other financial instruments in 2022 and 2021 and does not have relevant offsetting arrangements. Currently, financial assets and financial liabilities are settled on a gross basis; however, each party to the financial instrument (particularly related parties) will have the option to settle all such amounts on a net basis in the event of default of the other party through approval by both parties BODs and shareholders or upon instruction by the parent company. In addition, the Company's outstanding loans payable from certain banks can be potentially offset to the extent of the Company's outstanding cash deposited in the same banks (see Notes 4 and 10).

21.3 Fair Value Hierarchy

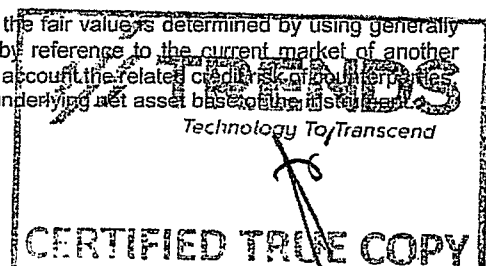
In accordance with PFRS 13, *Fair Value Measurements*, the fair value of financial assets and financial liabilities which are measured at fair value on a recurring or non-recurring basis and those financial assets and financial liabilities not measured at fair value but for which fair value is disclosed in accordance with other relevant PFRS, are categorized into three levels based on the significance of inputs used to measure the fair value. The fair value hierarchy has the following levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities that an entity can access at the measurement date;
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and,
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The level within which the financial asset or financial liability is classified is determined based on the lowest level of significant input to the fair value measurement.

For purposes of determining the market value at Level 1, a market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis.

For investments which do not have quoted market price, the fair value is determined by using generally acceptable pricing models and valuation techniques or by reference to the current market of another instrument which is substantially the same after taking into account the related credit risk and other factors, or is calculated based on the expected cash flows of the underlying net asset based on the best available information.





When the Company uses valuation technique, it maximizes the use of observable market data where it is available and relies as little as possible on entity specific estimates. If all significant inputs required to determine the fair value of an instrument are observable, the instrument is included in Level 2. Otherwise, it is included in Level 3.

**21.4 Financial Instruments Measured at Fair Value**

The equity securities of TGI held by the Company are classified as financial assets at FVOCI and are measured at fair value as of December 31, 2022 and 2021. These are categorized under Level 3 since their market values are not quoted in an active market (see Note 9). The fair value of these equity securities were determined based on the valuation method internally developed by management using the net asset value approach which involve analysis of the recent financial statements of the investee company with the assets and liabilities adjusted as appropriate for potential increment or decrement in valuation. This valuation approach also takes into consideration the historical operating results and potential growth pattern to determine the appropriate estimate of haircut rate applied to the measurement. Based on the current operating results and financial position of the investee companies, management assessed that this valuation approach provides a reasonable approximation of the fair value of those unquoted equity securities.

**21.5 Financial Instruments Measured at Amortized Cost for which Fair Value is Disclosed**

The following tables below summarizes the fair value hierarchy of the Company's financial assets and financial liabilities which are not measured at fair value in the statements of financial position but for which fair value is disclosed:

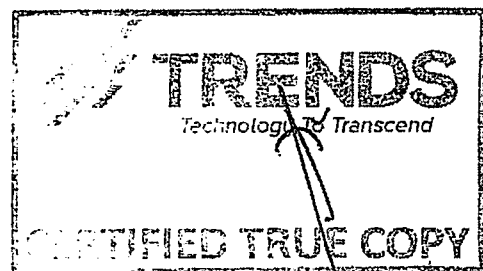
|                                    | Level 1              | Level 2  | Level 3              | Total                |
|------------------------------------|----------------------|----------|----------------------|----------------------|
| <b>December 31, 2022</b>           |                      |          |                      |                      |
| <i>Financial assets:</i>           |                      |          |                      |                      |
| Cash and cash equivalents          | 1,474,698,646        | -        | -                    | 1,474,698,646        |
| Trade and other receivables – net* | -                    | -        | 6,894,547,077        | 6,894,547,077        |
| Restricted cash                    | 61,448,666           | -        | -                    | 61,448,666           |
| Security deposits                  | -                    | -        | 1,169,615            | 1,169,615            |
| Refundable bonds                   | -                    | -        | 4,367,953            | 4,367,953            |
|                                    | <u>1,536,147,312</u> | <u>-</u> | <u>6,900,084,645</u> | <u>8,436,231,957</u> |
| <i>Financial liabilities:</i>      |                      |          |                      |                      |
| Loans payable                      | -                    | -        | 726,591,264          | 726,591,264          |
| Trade and other payables**         | -                    | -        | 5,652,684,830        | 5,652,684,830        |
| Due to related parties             | -                    | -        | 1,311,368,062        | 1,311,368,062        |
| Lease liabilities                  | -                    | -        | 62,690,401           | 62,690,401           |
|                                    | <u>-</u>             | <u>-</u> | <u>7,753,334,557</u> | <u>7,753,334,557</u> |
| <b>December 31, 2021</b>           |                      |          |                      |                      |
| <i>Financial assets:</i>           |                      |          |                      |                      |
| Cash and cash equivalents          | 3,948,627,051        | -        | -                    | 3,948,627,051        |
| Trade and other receivables – net* | -                    | -        | 4,181,177,956        | 4,181,177,956        |
| Restricted cash                    | 50,892,823           | -        | -                    | 50,892,823           |
| Security deposits                  | -                    | -        | 1,050,465            | 1,050,465            |
| Refundable bonds                   | -                    | -        | 3,935,237            | 3,935,237            |
|                                    | <u>3,999,519,874</u> | <u>-</u> | <u>4,186,163,658</u> | <u>8,185,683,532</u> |
| <i>Financial liabilities:</i>      |                      |          |                      |                      |
| Loans payable                      | -                    | -        | 705,159,138          | 705,159,138          |
| Trade and other payables**         | -                    | -        | 5,672,536,662        | 5,672,536,662        |
| Due to related parties             | -                    | -        | 2,275,684,732        | 2,275,684,732        |
| Lease liabilities                  | -                    | -        | 75,706,524           | 75,706,524           |
|                                    | <u>-</u>             | <u>-</u> | <u>8,729,087,056</u> | <u>8,729,087,056</u> |

\*Excluding receivables from employees

\*\*Excluding due to related parties, deferred output VAT and payable to government payables

For financial assets such as cash and cash equivalents and restricted cash included in Level 1, management considers that the carrying amounts of those short-term financial instruments approximate their fair values.

The fair values of the financial assets and financial liabilities included in Level 3 above, which are not traded in an active market, is determined based on the expected cash flows of the underlying net asset or liability base of the instrument where the significant inputs required to determine the fair value of such instruments are not based on observable market data.



**22. CAPITAL MANAGEMENT OBJECTIVES, POLICIES AND PROCEDURES**

The Company's capital management objectives are to ensure the Company's ability to continue as a going concern entity and to provide an adequate return to the shareholders by pricing products and services commensurate to the level of risk.

Relevant information is shown below.

|                      | 2022          | 2021          |
|----------------------|---------------|---------------|
| Total liabilities    | 8,787,076,576 | 9,841,007,132 |
| Total equity         | 3,292,270,510 | 2,926,043,640 |
| Debt-to-equity ratio | 2.67:1        | 3.36:1        |

The Company sets the amount of capital in proportion to its overall financing structure, i.e., equity and liabilities. The Company manages the capital structure and makes adjustments to it in the light of changes in economic conditions and the risk characteristics of the underlying assets. In order to maintain or adjust the capital structure, the Company may adjust the amount of dividends paid to shareholders, issue new shares or sell assets to reduce debt.

**23. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES**

Presented below is the reconciliation of the Company's liabilities arising from financing activities.

|                                       | Loans payable<br>(see Note 10) | Lease Liabilities<br>(see Note 8) | Total         |
|---------------------------------------|--------------------------------|-----------------------------------|---------------|
| Balance as of January 1, 2022         | 705,159,138                    | 75,706,524                        | 780,865,662   |
| Cash flows from financing activities: |                                |                                   |               |
| Repayments                            | (589,943,316)                  | (14,057,352)                      | (604,000,668) |
| Proceeds                              | 611,375,442                    | -                                 | 611,375,442   |
| Non-cash financing activities:        |                                |                                   |               |
| Interest expense                      | -                              | 1,041,229                         | 1,041,229     |
| Balance as of December 31, 2022       | 726,591,264                    | 62,690,401                        | 789,281,665   |

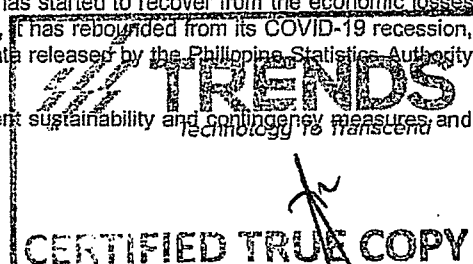
|                                       | Loans payable<br>(see Note 10) | Lease Liabilities<br>(see Note 8) | Total         |
|---------------------------------------|--------------------------------|-----------------------------------|---------------|
| Balance as of January 1, 2021         | 398,522,590                    | 41,041,778                        | 439,564,368   |
| Cash flows from financing activities: |                                |                                   |               |
| Repayments                            | (403,577,315)                  | (14,057,352)                      | (417,634,667) |
| Proceeds                              | 710,213,863                    | -                                 | 710,213,863   |
| Remeasurement                         | -                              | 47,916,272                        | 47,916,272    |
| Non-cash financing activities:        |                                |                                   |               |
| Gain on lease modification            | -                              | (235,403)                         | (235,403)     |
| Interest expense                      | -                              | 1,041,229                         | 1,041,229     |
| Balance as of December 31, 2021       | 705,159,138                    | 75,706,524                        | 780,865,662   |

**24. IMPACT OF COVID 19**

The implementation of community quarantine by the government as a precautionary measure to contain COVID-19, which started in the earlier part of 2020, has negatively impacted the Philippine economy. In 2021, though the Company is not significantly affected by the above situation, it was marked by sustained efforts to mitigate the impact of the pandemic and learning to operate with the reality of COVID-19.

In the earlier part of this year, the Philippine economy has started to recover from the economic losses brought about by the COVID-19 pandemic. At year end, it has rebounded from its COVID-19 recession, posted a growth rate of 7.6% based on the year-end data released by the Philippine Statistics Authority (PSA).

Nonetheless, the company will still continue to implement sustainability and contingency measures and monitor the situation.



25. **SUPPLEMENTARY INFORMATION REQUIRED BY THE BUREAU OF INTERNAL REVENUE**

Presented below and in the succeeding page are the supplementary information which is required by the Bureau of Internal Revenue (BIR) under its existing revenue regulations to be disclosed as part of the notes to financial statements. This supplementary information is not a required disclosure under PFRS. The information on taxes, duties and license fees paid or accrued during the taxable year required under Revenue Regulations (RR) No. 15-2010 are as follows:

(a) *Output VAT*

|                             | Tax Base             | Output VAT         |
|-----------------------------|----------------------|--------------------|
| Sale of goods and services: |                      |                    |
| Taxable sales               | 6,160,608,988        | 739,273,079        |
| Zero-rated sales            | 2,352,920,959        | -                  |
| Sales to government         | 1,040,268,286        | 124,832,194        |
| Exempt Sales                | 128,273,447          | -                  |
|                             | <u>9,682,071,680</u> | <u>864,105,273</u> |

The Company's VAT zero-rated sales were determined pursuant to Section 106A(2)(a), *Zero-rated VAT on Export Sale of Goods*.

The tax bases are included as part of Revenues in the 2022 statements of comprehensive income. The tax bases for certain portions of Revenues are based on the Company's gross receipts for the year; hence, these may not be the same as the amounts accrued and reported in the 2022 statements of comprehensive income.

(b) *Input VAT*

The movements in input VAT in 2022 are summarized below.

|   |                    |
|---|--------------------|
| Balance at January 1  | 17,159,313         |
| Current year's domestic purchases/payments of importations for: |                    |
| Importation of Goods Other than Capital Goods                   | 195,073,949        |
| Domestic purchase of services                                   | 314,180,591        |
| Goods for resale/manufacture or further processing              | 181,142,794        |
| Capital goods subject to amortization                           | 5,364,678          |
| Capital goods not subject to amortization                       | 354,159            |
| Add (Deduct) adjustment:  |                    |
| Deferred input tax on capital goods exceeding P 1 Million, beg  | 5,122,156          |
| Deferred input tax on capital goods exceeding P 1 Million, end  | (2,892,798)        |
| Input Tax allocable to Exempt Sales                             | (9,555,061)        |
| Total available input VAT                                       | <u>705,949,781</u> |
| Add:  |                    |
| VAT Payments  | 119,143,671        |
| Creditable Value-Added Tax Withheld                             | 39,516,868         |
| Less: Output VAT  | (864,105,273)      |
| Balance at December 31  | <u>505,047</u>     |

The outstanding balance of Input VAT as of December 31, 2022 is presented as current portions under the Prepayments and Other Assets account in the 2022 statements of financial position.

(c) *Taxes on Importation*

In 2022, the total landed cost of the Company's imported inventory for use in business amounts P 1,625,616,242.

(d) *Excise Taxes*

The Company did not have any transactions in 2022 which are subject to excise tax.

(e) *Documentary Stamp Tax*

In 2022, the Company paid P 4,674,362 for documentary stamp tax (DST) pertaining to loans obtained from local banks and issuance of shares during the year.



(f) *Taxes and Licenses*

The details of the Taxes and Licenses account in 2022 are as follows:

|                               |                   |
|-------------------------------|-------------------|
| Municipal license and permits | 72,107,101        |
| Documentary stamp tax         | 4,674,362         |
| Realty tax                    | 440,445           |
| Miscellaneous                 | 47,323            |
|                               | <u>77,269,231</u> |

The amount of taxes and licenses is shown as part of Operating Expenses in the 2022 statements of comprehensive income.

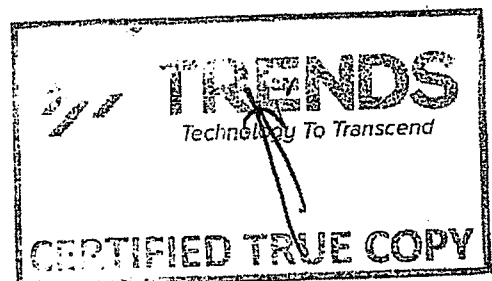
(g) *Withholding Taxes*

The details of total withholding taxes in 2022 are shown below.

|                           |                    |
|---------------------------|--------------------|
| Compensation and benefits | 179,859,451        |
| Expanded                  | 76,145,957         |
| Final withholding taxes   | 16,694,219         |
|                           | <u>272,699,627</u> |

(h) *Deficiency Tax Assessment and Tax Cases*

As of December 31, 2022, the Company does not have any final deficiency tax assessments from the BIR nor does it have tax cases outstanding or pending in courts or bodies outside of the BIR in any of the open taxable years.



**Net Financial  
Contracting Capacity  
(NFCC)**

## Form No. 5

**Computation of Net Financial Contracting Capacity (NFCC)**

The computation of a prospective bidder's NFCC must be at least equal to the ABC to be bid, calculated as follows:

NFCC = [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts including awarded contracts yet to be started coinciding with the contract to be bid.

|   | Amount                |
|---|-----------------------|
| Current Assets  | Php 10,765,342,328.00 |
| Minus: Current Liabilities  | Php 8,289,128,751.00  |
|   |                       |
| Multiplied by 15  | Php 37,143,203,655.00 |
|   |                       |
| Minus: Value of all outstanding or uncompleted portions of the projects under ongoing contracts including awarded contracts yet to be started | Php 776,625,906.73    |
| NFCC  | Php 36,366,577,748.27 |

Submitted by:

**Trends & Technologies, Inc.**

Name of Supplier / Distributor / Manufacturer

  
**Wilfredo N. Aguilar**

Signature of Authorized Representative

Date: October 12, 2023



TRENDS & TECHNOLOGIES, INC.  
(A Wholly-Owned Subsidiary of Trends Group, Inc.)  
Statements of Financial Position  
As at December 31, 2022 and 2021  
(In Philippine Peso)

| ASSETS  | Notes   | 2022                  | 2021                  |
|---|---------|-----------------------|-----------------------|
| <b>Current Assets</b>   |         |                       |                       |
| Cash and cash equivalents   | 4       | 1,474,698,646         | 3,948,627,051         |
| Trade and other receivables, net                                  | 5       | 6,906,036,897         | 4,208,833,831         |
| Contract assets   | 12.2    | 1,100,502,582         | 1,560,630,386         |
| Inventories, net  | 6       | 1,128,475,368         | 1,326,175,624         |
| Prepaid income tax  |         | 98,887,934            | 150,479,844           |
| Prepayments and other current assets                              | 7       | 56,740,901            | 86,969,421            |
| <b>Total</b>  |         | <b>10,765,342,328</b> | <b>11,281,716,157</b> |
| <b>Non-Current Assets</b>   |         |                       |                       |
| Property and equipment, net                                       | 8       | 136,445,980           | 106,462,645           |
| Right-of-use asset  | 8       | 49,898,674            | 63,430,445            |
| Investment in subsidiary and equity securities                    | 9       | 664,118,778           | 665,830,072           |
| Contract assets   | 12.2    | 241,236,136           | 446,504,259           |
| Other non-current assets  | 7       | 217,293,671           | 201,875,242           |
| Deferred tax assets, net  | 16      | 5,011,519             | 1,231,952             |
| <b>Total</b>  |         | <b>1,314,004,758</b>  | <b>1,485,334,615</b>  |
| <b>TOTAL ASSETS</b>   |         | <b>12,079,347,086</b> | <b>12,767,050,772</b> |
| <b>LIABILITIES AND EQUITY</b>                                     |         |                       |                       |
| <b>LIABILITIES</b>  |         |                       |                       |
| <b>Current Liabilities</b>  |         |                       |                       |
| Trade and other payables  | 11      | 7,264,501,564         | 8,184,352,120         |
| Contract liabilities  | 12.2    | 359,203,577           | 741,726,284           |
| Lease liabilities   | 8       | 16,388,718            | 16,388,718            |
| Loans payable, current portion                                    | 10      | 649,034,892           | 336,768,551           |
| <b>Total</b>  |         | <b>8,289,128,751</b>  | <b>9,279,235,673</b>  |
| <b>Non-Current Liabilities</b>                                    |         |                       |                       |
| Contract liabilities  | 12.2    | 308,218,686           | 68,886,447            |
| Lease liabilities   | 8       | 46,301,683            | 59,317,806            |
| Loans payable, non-current portion                                | 10      | 77,556,372            | 368,390,587           |
| Defined benefit liability   | 15.2    | 65,871,074            | 65,176,619            |
| <b>Total</b>  |         | <b>497,947,825</b>    | <b>561,771,459</b>    |
| <b>TOTAL LIABILITIES</b>  |         | <b>8,787,076,576</b>  | <b>9,841,007,132</b>  |
| <b>EQUITY</b>   |         |                       |                       |
| Authorized - 2,500,000,000 common shares @ P1 par value per share | 18      | 2,500,000,000         | 2,500,000,000         |
| Share capital   | 18      | 1,875,000,001         | 1,875,000,001         |
| Additional paid-in capital  | 18      | 124,375,000           | 124,375,000           |
| Revaluation reserves  | 9,15,18 | 196,205,351           | 182,702,450           |
| Accumulated profits   |         | 1,096,690,158         | 743,966,189           |
| <b>TOTAL EQUITY</b>   |         | <b>3,292,270,510</b>  | <b>2,926,043,640</b>  |
| <b>TOTAL LIABILITIES AND EQUITY</b>                               |         | <b>12,079,347,086</b> | <b>12,767,050,772</b> |

(see accompanying notes to financial statements)

MAY 02 2023  
ERVIN PACINIO

**TRENDS**  
Technology To Transcend  
**CERTIFIED TRUE COPY**

**NOT APPLICABLE**

**Duly signed valid joint  
venture agreement  
(JVA),**

**For foreign bidders  
claiming by reason of  
their country's extension  
of reciprocal rights to  
Filipinos**

**Certification from the  
DTI**



# **Bid Security**

**Form No. 8**

REPUBLIC OF THE PHILIPPINES)  
CITY OF City of Makati) S.S.

**BID SECURING DECLARATION**


**Project Identification No.:** LBP-HOBAC-ITB-GS-20230725-01

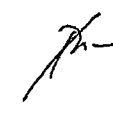
To: Land Bank of the Philippines  
LANDBANK Plaza Building  
1598 M.H. Del Pilar corner Dr. J. Quintos Streets  
1004 Malate, Manila

I, the undersigned, declare that:

1. I understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I accept that: (a) I will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of R.A. 9184; without prejudice to other legal action the government may undertake.
3. I understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
  - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
  - b. I am declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I failed to timely file a request for reconsideration or (ii) I filed a waiver to avail of said right; and
  - c. I am declared the bidder with the Lowest Calculated Responsive Bid, and I have furnished the performance security and signed the Contract.

**IN WITNESS WHEREOF**, I have hereunto set my hand this \_\_\_\_ day of 09 OCT 2023 at Makati City, Philippines.

  
**Wilfredo N. Aguilar**  
Account Manager  
Trends & Technologies, Inc.  
Authorized Representative  
Affiant



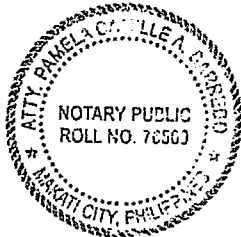
**SUBSCRIBED AND SWORN** to before me this 09 OCT 2023 day of \_\_\_\_\_, in Makati City, Philippines. Affiant is personally known to me and was identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant exhibited to me his Passport, with his photograph and signature appearing thereon, with no. P3957268B and his Community Tax Certificate No. 25816214 issued on January 31, 2023 at Bacoor City, Cavite.

Witness my hand and seal this \_\_\_\_\_ day of 09 OCT 2023.

**NAME OF NOTARY PUBLIC**

Serial No. of Commission \_\_\_\_\_  
Notary Public for \_\_\_\_\_ until \_\_\_\_\_  
Roll of Attorneys No. \_\_\_\_\_  
PTR No. \_\_\_\_\_, [date issued], [place issued]  
IBP No. \_\_\_\_\_, [date issued] [place issued]

Doc. No. 474 ;  
Page No. 96 ;  
Book No. II ;  
S. of 2023



*[Signature]*  
**ATTY. PAMELA CAMILLE A. BARREDO**  
Notary Public for and in the City of Makati  
Appointment No. M-041 (2023-2024)  
Until 31 December 2024  
Roll of Attorneys No. 76503; 5 May 2022  
PTR No. 9582131/12 January 2023/Makati City  
IBP No. 276895/9 January 2023/Pasig City  
23/F Trafalgar Plaza Building  
105 H.V. Dela Costa St., Saicedo Village  
Makati City, Philippines 1227

*[Signature]*

**Section VI – Schedule of  
Requirements**

## Schedule of Requirements

The delivery schedule/contract period expressed as weeks/months/years stipulates hereafter a delivery/performance period which is the period within which to deliver the goods or perform the services in the project site/s.

| Description   | Quantity        | Delivery Period   |
|---|-----------------|---|
| <b>Two (2) Years Shared Cyber Defense Solution for the Insurance Cluster</b>  |                 | <b>Phase 1 – one hundred twenty (120) working days</b> from the issuance of Notice to Proceed;  |
| 1) Bureau of Treasury   | 1,600 endpoints | <b>Phase 2 – ninety (90) working days</b> from the issuance of Notice to Proceed.   |
| 2) Government Service Insurance System  | 4,400 endpoints | Commencement date will be from the receipt of Notice to Proceed by the winning bidder. The vendor must provide a project schedule, which should present the project milestones and deliverables at each milestone. License subscriptions will start upon contract implementation. |
| 3) Social Security System   | 8,000 endpoints |   |
| 4) Philippine Deposit Insurance Corporation   | 1,200 endpoints |   |
| <b>Phase 1:</b><br><ul style="list-style-type: none"> <li>▪ Threat Intelligence</li> <li>▪ Security Monitoring and Management</li> <li>▪ Incident Response</li> </ul> <b>Phase 2:</b><br><ul style="list-style-type: none"> <li>▪ Vulnerability Management</li> </ul> |                 |   |

Conforme:

TRENDS & TECHNOLOGIES INC.

Name of Bidder

WILFREDO M. AGUILAR

Signature over Printed Name of  
Authorized Representative


ACCOUNT MANAGER AND AUTHORIZED REPRESENTATIVE

Position

# **Section VII – Technical Specifications**

# Technical Specifications

| Specifications  | Statement of Compliance |                 |  |                 |                           |                 |   |                 |   |
|---|-------------------------|-----------------|--|-----------------|---------------------------|-----------------|---|-----------------|---|
| <p align="center"><b>Two (2) Years Shared Cyber Defense Solution for the Insurance Cluster</b></p> <table border="1" data-bbox="240 1458 794 1639"> <tr> <td>1. Bureau of Treasury</td> <td>1,600 endpoints</td> </tr> <tr> <td>2. Government Service Insurance System</td> <td>4,400 endpoints</td> </tr> <tr> <td>3. Social Security System</td> <td>8,000 endpoints</td> </tr> <tr> <td>4. Philippine Deposit Insurance Corporation</td> <td>1,200 endpoints</td> </tr> </table> <p>Phase 1.</p> <ul style="list-style-type: none"> <li>▪ Threat Intelligence</li> <li>▪ Security Monitoring and Management</li> <li>▪ Incident Response</li> </ul> <p>Phase 2.</p> <ul style="list-style-type: none"> <li>▪ Vulnerability Management</li> </ul> | 1. Bureau of Treasury   | 1,600 endpoints | 2. Government Service Insurance System | 4,400 endpoints | 3. Social Security System | 8,000 endpoints | 4. Philippine Deposit Insurance Corporation | 1,200 endpoints | <p align="center"><b>Bidders must state below either "Comply" or "Not Comply" against each of the individual parameters of each Specification preferably stating the corresponding performance parameter of the product offered.</b></p> <p>Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.</p> <p align="center"><b>Please state here either "Comply" or "Not Comply"</b></p> <p>- COMPLY</p> <p>- COMPLY</p> <p>- COMPLY</p> <p>- COMPLY</p> <p>- COMPLY</p> <p>- COMPLY</p> <p>- COMPLY</p> <p>- COMPLY</p> |
| 1. Bureau of Treasury   | 1,600 endpoints         |                 |  |                 |                           |                 |   |                 |   |
| 2. Government Service Insurance System  | 4,400 endpoints         |                 |  |                 |                           |                 |   |                 |   |
| 3. Social Security System   | 8,000 endpoints         |                 |  |                 |                           |                 |   |                 |   |
| 4. Philippine Deposit Insurance Corporation   | 1,200 endpoints         |                 |  |                 |                           |                 |   |                 |   |

  
**WILFREDO N. AGUILAR**  
 ACCOUNT MANAGER  
 TRENDS 2 TECHNOLOGIES, INC.

|  |        |
|--|--------|
| Notes:   |        |
| 1. Technical specifications and other requirements per attached Terms of Reference (TOR) – revised Annexes D-1 to D-25.  | COMPLY |
| 2. The documentary requirements enumerated in Items 3.II.C and D of the TOR shall be submitted in support of the compliance of the Bid to the technical specifications and other requirements. | COMPLY |
| Non-submission of the above requirements may result to post-disqualification of the bidder.  | COMPLY |

PLEASE SEE ATTACH DETAILED TOR RESPONSE

Conforme:

TRENDS & TECHNOLOGIES, INC.

Name of Bidder

WILFREDO N. AGUILAR

Signature over Printed Name of  
Authorized Representative

ACCOUNT MANAGER & AUTHORIZED REPRESENTATIVE

Position



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**SHARED CYBERDEFENSE SOLUTION  
(REBIDDING)**

**Terms of Reference (Insurance Cluster)**

**Version Number** : 4.4

**Date** : 27 September 2023

**Author** : Government Service Insurance System  
Bureau of the Treasury  
Social Security System  
Philippine Deposit Insurance Corporation

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## 1. Name and Description of the Project

With the continued evolving nature of cybersecurity risks, the Secretary of Finance has mandated various agencies under the Department to establish a cost-effective defense strategy that will add a layer of defense for the agencies to shield their respective IT systems from potential cybersecurity threats, along with other possible risks and data breaches in the digital landscape.

For this Terms of Reference (TOR), it will cover the Insurance Cluster composed of the Bureau of the Treasury (BTr), Government Service Insurance System (GSIS), Social Security System (SSS), Philippine Deposit Insurance Corporation (PDIC).

## 2. Project Objective and Scope

The proposed Common Cyber Defense Solution shall require the vendor to provide a two (2) year subscription for the provision of Security Monitoring and Management, Vulnerability Management, Threat Intelligence, and Incident Response. This is primarily focused on the National Institute of Standards and Technology (NIST) Cybersecurity Framework – Identify, Protect, Detect, Respond and Recover.

The Approved Budget for the Contract (ABC) shall be the upper limit or ceiling for the proposal, and shall cover all project costs, including, but not limited to the following:

- Subscription cost that will be based on the number below:

| Agency | Servers | Desktops/Laptops | Total |
|--------|---------|------------------|-------|
| BTr    | 150     | 1450             | 1600  |
| GSIS   | 400     | 4000             | 4400  |
| SSS    | 200     | 7800             | 8000  |
| PDIC   | 82      | 1118             | 1200  |

- The project shall include project management, consulting, requirements validation, customization, training, integration, training, production deployment, system integration, change management and other out-of-pocket expenses (e.g., transportation allowance, per diem, etc.);
- The Shared Defense subscription shall commence immediately after the Phase 1 implementation of the project.
- Post Go Live support starting from the implementation date; and
- All applicable taxes, service fees and charges (e.g., fund transfers fees, foreign exchange difference)

The proposed Common Cyber Defense Solution for the Insurance Cluster shall be procured in one lot which shall consist of sublots per agency. Likewise, this shall be the basis for awarding per agency.

The pricing shall be uniform for all agencies in the cluster.

**Other Requirements**

During procurement, the bidder is required to submit respective proposals for all the agencies concerned.

**3. Functional and Non-Functional Requirements**

The vendor shall respond to each requirement stated herein. Failure to conform to any of the specifications shall be sufficient grounds for disqualification.

**I. Functional Requirements**

| A: Security Monitoring and Management  | COMPLETED | REMARKS |
|--|-----------|---------|
| A.1 Security Operations Center (SOC)   | Y/N       |         |
| 1. The service provider shall provide a cloud-based SOC for individual agencies with complete Security Information and Event Management (SIEM) and Security Orchestration, Automation, and Response (SOAR) solution that allows for two-way integration with the agencies data sources, capture of near real-time log data, and must perform correlation between data sources during investigation which shall also be accessible by the Individual agencies. The licenses for the SIEM and SOAR solutions shall be subscribed per agency during the term of the contract. | Y         |         |
| 2. The service provider shall set up a cluster level SOC dashboard to have an integrated and high level overview of the cluster agencies security posture.   | Y         |         |
| 3. The SOC through the SIEM, shall detect and monitor threats, correlate with threat intelligence sources, generate alerts, conduct investigation, and escalate tickets to the agencies on a 24x7 basis, using the Security Operations Center (SOC) platform, inclusive of the security tools to be provisioned for the agencies.  | Y         |         |
| 4. There must be a proper onboarding and integration period between the service provider and the agencies prior to full SOC operation to ensure completeness of SOC visibility and familiarization with the agencies processes and network behavior.   | Y         |         |
| 5. The SOC solution shall have its own ticketing tool for incident ticket generation.  | Y         |         |
| 6. The SOC solution, through the SIEM, shall classify security events based on the following risk rating matrix containing the following information. The report method shall be thru call and/or e-mail:  | Y         |         |

NOTE: PLEASE SEE ATTACH DETAILED TOR RESPONSE



| Priority | Impact          |      |        |     |          | Report Time       |
|----------|-----------------|------|--------|-----|----------|-------------------|
|          | Response Time   | High | Medium | Low | Critical |                   |
|          | Within 2 hours  | PO   | PO     | PO  | PO       | within 15 minutes |
|          | Within 12 hours | PO   | PO     | PO  | NA       | within 30 minutes |
|          | Within 24 hours | PO   | PO     | PO  | PO       | N/A               |
|          | 24 hours        | PO   | PO     | PO  | PO       | N/A               |

- Impact: Severity of the security event to critical assets
- Priority: Based on the impact and severity
- Nature of threat
- Potential business impact
- Remediation recommendations

*\*Response Time: How soon the security incident must be acknowledged by the service provider*

*\*Report Time: How soon a reference number/ problem ticket must be created by the service provider and received by the agency. The Report Time is included in the Response Time.*

|   |           |         |
|---|-----------|---------|
| 7. Monthly monitoring service management:<br>The service provider shall conduct regular meetings with the agencies IT stakeholders to review SOC performance and discuss the overall IT security posture of the agencies, including fine-tuning of configurations and provision of best practices advice, to aid in continuous improvement. Regular written reports must also be available to track the status of cases and the assistance needed. Monthly reports shall contain, but not limited to: | Y         |         |
| 8. The service provider shall ensure flexibility and scalability of the agencies SOC platform and shall ingest and process all events sent by the agencies for the SIEM and SOAR requirements including its current and future needs.   | Y         |         |
| 9. The service provider shall facilitate SOC security briefing at least once a month for the agencies to present the latest local and international news and updates in Cyber security.   | Y         |         |
| <b>A.2 Managed Detection and Response</b>   | COMPLETED | REMARKS |
| <b>A.2.1 Deployment and Management</b>  | Y         |         |
| 1. The service provider shall supply Managed Detection and Response services, including the Endpoint Protection / Endpoint Detection and Response (EDR) licenses required for supported endpoints. Supported endpoints refer to Windows endpoints, Windows servers, major Unix and Linux distributions, MacOS, Mobile devices, that is still under support or extended support by the manufacturer.   | Y         |         |

|   |   |  |
|---|---|--|
| 2. The solutions provider must be capable to deploy the endpoint technology to workstations and servers, including Windows, Mac, Unix and Linux assets, using the agencies or the solutions providers deployment tool, and must support both physical and virtual environments.   | Y |  |
| 3. For non-supported systems, other means of monitoring must be performed, such as network detection and response (NDR or similar) tool shall be provided. The NDR shall use a standard network interface which may be 1G or 10G. The service provider, however, is expected to make the necessary adjustments during the actual project implementation with the member agency. For NDR with throughput 5G and above, a dual power supply unit (PSU) shall be required. | Y |  |
| 4. The solution shall detect and prevent attacks on-premise, for supported and unsupported endpoints, including agency deployments in public clouds, if any, such as, but not limited to Amazon Web Services (AWS), Azure, Oracle Cloud and Google Cloud.   | Y |  |
| 5. The solution shall be capable to block malicious indicators of compromise (IOCs) and behaviors of compromise (BOCs) automatically with expert review of detections by analysts to ensure there is always human oversight on technology.  | Y |  |
| 6. The solution shall allow custom enforcement policies to neutralize sophisticated malware and lateral movement utilizing "living off the land" techniques that can potentially evade standard detections, however, ensuring that these custom policies does not impede business operations.   | Y |  |
| 7. Update of Indicators of Compromise (IOC) and watchlist repository, whenever applicable   | Y |  |

| A.2.2 Prevention and Detection  | COMPLIED<br>Y/N | REMARKS |
|---|-----------------|---------|
| 1. The solution shall have integration with the SIEM for central monitoring and analysis, including the setup of relevant dashboards such as but not limited to, attacks, threats, endpoints at risk.   | Y               |         |
| 2. The solution should utilize signature-based and/or signature-less detection techniques to protect against known and unknown attacks.   | Y               |         |
| 3. The solution should have Machine Learning and Behavioral Pattern Indicator of Attack (IOA) detection capability.   | Y               |         |
| 4. The solution must be able to detect and prevent the following: <ul style="list-style-type: none"> <li>• exploitation behavior using IOAs and no signatures.</li> <li>• ransomware behavior using Behavior IOA patterns and no signatures.</li> <li>• file-less malware using Behavior IOA patterns.</li> <li>• malware-free tradecraft using Behavior IOA patterns.</li> <li>• BIOS level attacks</li> <li>• Privilege Escalation</li> <li>• Exfiltration</li> </ul> | } Y             |         |

|  |           |         |
|--|-----------|---------|
| • Connection to malicious command and control destinations   | Y         |         |
| 5. The solution must be able to enrich a detected event with its own threat intelligence and not any third-party intelligence including mapping of the technique, tactic and procedure (TTP) against the MITRE ATT&ACK framework.  | Y         |         |
| <b>A.2.3 Threat Hunting and Response</b>   | COMPLETED | REMARKS |
| 1. The service provider must provide 24x7 Managed Threat Hunting Service, supported by experienced and certified analysts or incident responders for the remote response on endpoint incidents/events  | Y         |         |
| 2. The service provider must have pre-built threat hunting applications and queries  | Y         |         |
| 3. The service provider must be able to get context from indicators such as IP's, URL's, domains, or hashes using the tools within the platform, including associated events with unique visibility including account creation, login activity, local firewall modification, service modification, sources of remote operations (including scheduled task creations, registry changes, WMIC execution, among others) | Y         |         |
| 4. The solution shall be able to isolate "at-risk" endpoints, including the blocking the launching of suspicious or malicious applications.  | Y         |         |
| 5. The solution shall allow blacklisting and whitelisting of hashes manually through the solution.   | Y         |         |
| 6. The solution shall provide remote response by administrators, analysts, or incident responders such as containment, deleting files, killing process among others without the need for additional tools or agents.   | Y         |         |
| 7. The solution shall provide root cause analysis of all identified malicious activity.  | Y         |         |
| <b>A.3 Security Information and Event Management (SIEM)</b>  | COMPLETED | REMARKS |
| 1. The solution shall provide individual agency, web-based dashboards for accessing their agency information about alerts, attacks, track remediation on incidents, generate and extract reports which can be presented near real-time or over a time period. The agencies must be able to request customized dashboards and ad-hoc reports from the service provider.   | Y         |         |
| 2. The solution shall be capable to support collection of different types of metadata (e.g., logs, security events, network flows, among others) from data sources and shall include log compression and industry standard encryption at rest and in transit to ensure security of captured data from disclosure to disinterested parties.   | Y         |         |
| 3. The data sources ingested by the solution shall include at least the events from perimeter security tools, active directory logs, endpoint protection, and endpoint detection and response tools, including events from sensors that may be deployed by the solutions provider, if needed.  | Y         |         |

|   |  |           |         |
|---|--|-----------|---------|
| 4. The maximum aggregate daily data ingestion shall be as follows:  |  | } Y       |         |
| Agency  | Daily Event Log Aggregate Size in Gigabytes (GB) |           |         |
| BTr   | 17 GB  |           |         |
| GSIS  | 24 GB  |           |         |
| SSS   | 48 GB  |           |         |
| PDIC  | 15 GB  |           |         |
| 5. The service shall have content packs that are prebuilt configurations for common security use cases that provide sets of rules, alarms, baselines, views, reports, variables, and watchlists.  |  | Y         |         |
| 6. The service shall provide advanced security capabilities, such as User and Entity Behavioral Analytics (UEBA), natively within its own platform.   |  | Y         |         |
| 7. The solution must integrate with the global threat intelligence subscription service for data enrichment to quickly identify attack paths and past interactions with known bad actors and increase threat detection accuracy while reducing response time.   |  | Y         |         |
| 8. The solution must be able to generate and send actionable items to the automation and orchestration tool as well as generate and send alerts to both service provider and agency analysts and incident responders.   |  | Y         |         |
| 9. The service provider shall ensure the availability of the ingested raw logs twelve (12) months with comprehensive searchability. The logs, including evidences of security incidents, should be tamper proof and made available for legal and regulatory purposes, as required.<br><br>The logs beyond the retention period shall be archived and given monthly to the agencies in an agreed format. |  | } Y       |         |
| 10. The service provider shall ensure that the data ingested from the insurance cluster is not shared or disclosed to or accessed by parties not mentioned in the contract unless explicitly granted permission by the cluster.   |  | Y         |         |
| <b>A.4 Security Orchestration, Automation and Response (SOAR)</b>   |  | COMPLETED | REMARKS |
| 1. The solution must be able to integrate with the SIEM and fully orchestrate security operations and provide security teams with case management, automation, and investigation within a single pane of glass  |  | Y         |         |
| 2. The solution must have visibility into the security operation provided via dashboards, KPIs and customizable reporting   |  | Y         |         |
| 3. The solution must be able to support machine driven and analyst led response to remediate threats in a consistent and auditable manner   |  | Y         |         |

|  |   |  |
|--|---|--|
| 4. The solution must render alerts, cases, query reports, and events into clustered and contextualized threat storylines with a high degree of visualization   | Y |  |
| 5. The solution must be an open architecture that allows for easy connectivity and integrations to any existing system, bringing them all together into a single, contextual language. Integration with other solutions can either be out of the box or customized.  | Y |  |
| 6. The solution must be able to accelerate security incident processes by automating or semi automating workflows  | Y |  |
| 7. The solution must include out of the box or customizable playbooks of best practices to scale operations, drive consistency in response and meet compliance requirements. Playbooks deployed shall include at least: <ul style="list-style-type: none"> <li>• Phishing enrichment and response</li> <li>• Malware endpoint response</li> <li>• Login Anomalies (multiple failed logins, unusual activity such as login attempts outside office hours, etc)</li> <li>• Unusual browsing activity</li> <li>• Web attack profiling and blacklisting</li> </ul> | Y |  |
| 8. The solution should provide pre-set and customizable KPI metrics to monitor threat response efficacy and team performance.  | Y |  |

| B. Vulnerability Management and Penetration Testing  | COVERED | REMARKS |
|--|---------|---------|
| <b>B.1 Vulnerability Management</b>  |         |         |
| 1. The solution provided must be a cloud based service, integrated within the SIEM, that shall give immediate global visibility into where the Agency IT system might be vulnerable to the latest Internet threats and how to protect them.  | Y       |         |
| 2. It should be able to continuously identify threats and monitor unexpected changes in the network before they turn into breaches. The solution can be agentless or agent-based if continuous monitoring is required on specific systems.   | Y       |         |
| 3. The solution should be able to scan systems anywhere in the Agency environment, from the same console whether the asset is on the perimeter, the internal network, or cloud environments (such as Amazon Web Services, Oracle Cloud, Microsoft Azure or Google Cloud) with the ability to create custom reports showing each audience just the level of detail it needs to see. | Y       |         |
| 4. The solution should be able to identify and prioritize critical vulnerabilities and risks to enable the agencies to prioritize the remediation of the highest business risks using trend analysis, zero-day and patch impact predictions.   | Y       |         |
| 5. The solution should be able to track vulnerability data across hosts and time, to give a better understanding of the agencies security posture. The reports can be changed through existing pre-built templates, without the need to rescan. The reports can be generated on demand or  | Y       |         |



| scheduled automatically and then shared with the appropriate recipients online, in PDF or CSV   | Y   |         |     |   |      |   |     |  |      |   |   |  |
|---|---|---------|-----|---|------|---|-----|--|------|---|---|--|
| 6. The solution should be able to automatically gather and analyze security and compliance data in a scalable backend, with provisioning additional capabilities as easy as checking a box.   | Y   |         |     |   |      |   |     |  |      |   |   |  |
| 7. The solution should be able to proactively address potential threats whenever new vulnerabilities appear, with real-time alerts to notify the agencies immediately, without the need to schedule scan windows or manage scanning credentials.  | Y   |         |     |   |      |   |     |  |      |   |   |  |
| 8. The solution must be able to conduct a continuous compromise assessment, which shall include at the minimum: <ul style="list-style-type: none"> <li>▪ Identification of the specific vulnerabilities, at risk, and/or compromised assets</li> <li>▪ Evaluation of scanned assets and identification of possible vulnerability linkages through a detailed analysis of the results</li> </ul>   | Y   |         |     |   |      |   |     |  |      |   |   |  |
| <b>B.2 Vulnerability Assessment and Penetration Testing (VAPT)</b>  | COMPLIED<br>Y   | REMARKS |     |   |      |   |     |  |      |   |   |  |
| 1. Vulnerability Assessment and Penetration Testing (VAPT) shall be performed annually on an agreed schedule and scope with the agencies. The VAPT scope may include network infrastructure, applications (e.g., public-facing web and mobile applications), Application Programming Interfaces (APIs), endpoints, hosts and databases, including member service systems or kiosks, authenticated and unauthenticated testing, if any and among others.   | Y   |         |     |   |      |   |     |  |      |   |   |  |
| 2. The scope of VAPT shall be at least the following: <table border="1" data-bbox="229 1227 1187 1464"> <thead> <tr> <th>Agency</th> <th>Scope</th> </tr> </thead> <tbody> <tr> <td>BTr</td> <td>7 External resources, up to 80 IP addresses</td> </tr> <tr> <td>GSIS</td> <td>20 External resources, 2 mobile apps, up to 80 IP addresses</td> </tr> <tr> <td>SSS</td> <td>25 External resources, 1 mobile app up to 150 IP addresses</td> </tr> <tr> <td>PDIC</td> <td>8 External resources, up to 80 IP addresses</td> </tr> </tbody> </table> | Agency  | Scope   | BTr | 7 External resources, up to 80 IP addresses | GSIS | 20 External resources, 2 mobile apps, up to 80 IP addresses | SSS | 25 External resources, 1 mobile app up to 150 IP addresses | PDIC | 8 External resources, up to 80 IP addresses | Y |  |
| Agency  | Scope   |         |     |   |      |   |     |  |      |   |   |  |
| BTr   | 7 External resources, up to 80 IP addresses                 |         |     |   |      |   |     |  |      |   |   |  |
| GSIS  | 20 External resources, 2 mobile apps, up to 80 IP addresses |         |     |   |      |   |     |  |      |   |   |  |
| SSS   | 25 External resources, 1 mobile app up to 150 IP addresses  |         |     |   |      |   |     |  |      |   |   |  |
| PDIC  | 8 External resources, up to 80 IP addresses                 |         |     |   |      |   |     |  |      |   |   |  |
| 3. The service provider shall deliver and maintain a vulnerability database with relevant software version upgrades and security policy update recommendations, inclusive of changes to existing and new vulnerability and threat signatures.   | Y   |         |     |   |      |   |     |  |      |   |   |  |
| 4. The service provider shall provide online reporting and metrics capability: <ul style="list-style-type: none"> <li>• VAPT results/data (including risk, remediation status, and data compromised, if any) and access to historical test result and trend analysis delivered via the service provider's portal shall be accessible to the agencies. This would also include handholding with the agencies concerned to properly remediate/mitigate vulnerabilities, findings, and observations.</li> </ul>                                      | Y   |         |     |   |      |   |     |  |      |   |   |  |

|  |            |  |
|--|------------|--|
| <p>5. The service provider shall have predefined fields/templates for the generation of reports, such as, but not limited to:</p> <ul style="list-style-type: none"> <li>• VAPT Report (i.e., Executive Summary, Conclusion for Management Area, and Specific Action Plans)</li> <li>• Security Profiling Results (including reports from automated scanning tools)</li> <li>• Detailed observations and recommendations</li> </ul>  | <p>} Y</p> |  |
| <p>6. Common Vulnerability Scoring System values:</p> <ul style="list-style-type: none"> <li>• The service provider shall use CVSS v3.0 or later for risk ranking and prioritizing security vulnerabilities.</li> </ul>  | <p>} Y</p> |  |
| <ul style="list-style-type: none"> <li>• The service provider shall be capable to generate multi-format reports, including exporting of report data in PDF, Microsoft Excel, XML, CSV, and HTML.</li> </ul>  | <p>Y</p>   |  |
| <p>7. The service provider shall perform Host discovery and Operating System (OS) fingerprinting functionalities for the following, but not limited to:</p> <ul style="list-style-type: none"> <li>• Windows (all versions)</li> <li>• Linux and other Unix flavors (all versions)</li> <li>• Network and security related equipment, whether software or hardware-based</li> <li>• User profile settings</li> <li>• Advanced password analysis</li> </ul>   | <p>} Y</p> |  |
| <p>8. The service provider shall perform common service discovery and fingerprinting functionalities for the following, whether on-premise or cloud-based:</p> <ul style="list-style-type: none"> <li>• Application servers</li> <li>• Authentication servers</li> <li>• Backdoors and remote access services</li> <li>• Backup applications/tools</li> <li>• Database servers</li> <li>• Active Directory, Lightweight Directory Access Protocol (LDAP)</li> <li>• Domain Name Systems (DNS)</li> <li>• Mail servers and Simple Mail Transfer Protocols (SMTP)</li> <li>• Network File Systems (NFS), Network Basic Input/Output System (NetBIOS) and Common Internet File Systems (CIFS)</li> <li>• Network Time Protocols (NTP)</li> <li>• Remote Procedure Calls</li> <li>• Routing protocols</li> <li>• Simple Network Monitoring Protocol (SNMP)</li> <li>• Telecommunications Network (Telnet), Trivial File Transfer Protocol (TFTP), Secure Shell (SSH)</li> <li>• Virtual Private Network (VPN)</li> <li>• Web and mobile applications</li> <li>• Web servers</li> </ul> | <p>} Y</p> |  |

| C. Threat Intelligence  | COMPLETED | REMARKS |
|---|-----------|---------|
| 1. The solution shall deliver threat intelligence on the following:   | Y         |         |
| • Brand protection - company names/domain   | Y         |         |
| • Social media pages  | Y         |         |
| • External Internet Protocol (IP) addresses   | Y         |         |
| • Website and mobile application monitoring   | Y         |         |
| • VIP e-mails   | Y         |         |
| • Sector monitoring Financial, Government, Insurance, and Healthcare  | Y         |         |
| • Society for Worldwide Interbank Financial Telecommunication (SWIFT) codes   | Y         |         |
| • Credit cards  | Y         |         |
| • GitHub  | Y         |         |
| • Custom queries  | Y         |         |
| • 25 Site take downs for each agency during the duration of the contract(i.e., phishing, social media sites, and others) however, should the agency need additional takedowns, this will be provided by the service provider at no additional cost. | Y         |         |
| • Scraping databases that contain large amounts of data found in the deep and dark web  | Y         |         |
| • Third party queries   | Y         |         |
| • Investigation   | Y         |         |
| • Threat library  | Y         |         |
| 2. The threat intelligence solution must, at minimally, harvest data from the following open, technical and closed sources types:   | Y         |         |
| • Mainstream Media (including news, information security sites, vendor research, blogs, vulnerability disclosures)  | Y         |         |
| • Social Media  | Y         |         |
| • Forums  | Y         |         |
| • Paste Sites   | Y         |         |
| • Code Repositories   | Y         |         |
| • Threat lists (including spam, malware, malicious infrastructure)  | Y         |         |
| • Dark Web (including multiple tiers of underground communities and marketplaces)   | Y         |         |
| • Original research from in-house human intelligence analysts   | Y         |         |
| 3. The solutions provider must be able to:  | Y         |         |

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|--|---|--|
| • Detect and take down servers launching phishing attacks  | Y |  |
| • Take down of fake applications that impersonate legitimate ones from app stores.   | Y |  |
| • Take immediate action on the agencies behalf and provide all the context to execute rapid take-down of malicious servers, websites or social media accounts.   | Y |  |
| 4. The solution shall be capable to detect leaked Personally Identifiable Information (PIIs) and the agencies information from the deep and dark web, social media, and other forms of instant messaging platforms and provide recommended action plan.  | Y |  |
| 5. The threat intelligence solution must be able to identify fraudulent social media accounts that are impersonating the agencies and its executives   | Y |  |
| 6. The solution shall monitor the domains and IP addresses that have bad reputation.   | Y |  |
| 7. The service provider shall consume internal and external threat intelligence into its threat analysis process.  | Y |  |
| 8. The service provider shall deliver weekly intelligence summary reports on the latest cyber threats, including detected information on the intention to target agencies or other government industries, major activist campaigns, and indications of activism against the agencies, financial and health sector, and the government. | Y |  |
| 9. The service provider shall provide a special report or notice to the agencies immediately, should there be any information or detection of targeted attacks against the agencies, the government or the sectors of the concerned agencies.  | Y |  |

| D. Incident Response   | COMPLETED Y/N | REMARKS |
|--|---------------|---------|
| 1. The service provider shall review the agencies Incident Response Plan (IRP), which would guide the agencies on the creation, enhancement, and documentation of incident response playbooks, policies, and guidelines, such as, but not limited to: <ul style="list-style-type: none"> <li>• Escalation process</li> <li>• Incident containment process</li> <li>• Incident eradication process</li> <li>• Incident recovery process</li> <li>• Incident identification process</li> <li>• Process flow</li> </ul>   | Y             |         |
| 2. The service provider shall act as the Incident Response (IR) Manager and facilitate the six (6) phases of IR. The service provider must be on-call and will conduct the IR activities onsite, as necessary (i.e., in cases of breach). The IRs per agency shall cover 200 accumulated hours per year. Beyond the required 200 hours, the agencies shall shoulder the cost. In case the 200 hours allotted for IR is not fully or not consumed, it can be converted to other services, such as training among others, that the provider can render for information security. | X             |         |
| 3. The service provider shall conduct an annual, or as needed, IR readiness training to the agencies Computer Security Incident Response Teams (CSIRT), including IT security awareness trainings to both technical and non-technical audiences of the agencies. The   | Y             |         |

|  |     |  |
|--|-----|--|
| readiness training shall include best practices recommendation in isolation, containment, and remediation activities of the security incident.   | Y   |  |
| 4. The service provider shall conduct an annual, or as needed, incident response drill or simulation exercises with the agencies-CSIRTs to improve detection and internal readiness for cyber security incidents. This will include internal and external incident communications, reduced impact on operation continuity, reporting to regulators (e.g., NPC, DICT), CSIRT readiness, blue team capability, tabletop exercises, among others. | Y   |  |
| 5. The Service Provider shall map security playbook and runbooks for applicable security use cases to guide client on their incident response.   | Y   |  |
| 6. The service provider shall deliver technical assistance to the agencies CSIRTs during emergency (successful) breach response.   | Y   |  |
| 7. The Service Provider shall have a facility to receive client's reported incident (via authorized point of contact from client) for incidents not captured on the monitoring tool.   | Y   |  |
| 8. The service provider shall deliver network/firewall/web applications breach response.   | Y   |  |
| 9. The service provider shall identify, cleanse or contain malicious code, malware, spyware, and system-file hacks.  | Y   |  |
| 10. The service provider shall deliver root cause analysis to identify the intrusion vector and provide mitigating procedures to address network and system vulnerabilities.   | Y   |  |
| 11. The service provider shall identify indicators of compromise and scan the network to search for other related infected systems.  | Y   |  |
| 12. The service provider shall deliver insider threat investigation, as needed.  | Y   |  |
| 13. The service provider shall deliver employee misconduct investigations, as needed.  | Y   |  |
| 14. The service provider shall deliver incident and investigation reports.   | Y   |  |
| 15. The service provider shall have a certified and recently trained (at least in the past 12 months) in-house cyber security forensics specialist, to support advanced investigation.   | Y   |  |
| 16. The service provider shall assist in the following: <ul style="list-style-type: none"> <li>• Incident handling preparation and execution</li> <li>• Crisis management</li> <li>• Breach communication</li> <li>• Forensic analysis including preservation of evidence for chain of custody requirements</li> <li>• Remediation</li> </ul>  | } Y |  |
| 17. The Service Provider shall rate the prioritization and severity of security incidents and create a service ticket as per agreed Service Level Agreement (SLA).   | Y   |  |

| Service Level Agreement (SLA)  |   |   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
|--|---|---|---|-----------|---|-------------------|---|---------------|-------------------|---------------|--------------------|-----------------|--------------------|----------------------------------|--|--|--|-------------------|---------|---------|--|--|-------|-------|---|---|
| <p>1. Acknowledgement SLA - The Acknowledgement SLA Percentage shall be computed per month base on the total number of missed hours exceeding the Acknowledgement SLA guarantee of fifteen (15) minutes per incident</p> <table border="1"> <thead> <tr> <th>Service Level Target</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>98%</td> <td>Acknowledgement SLA of 15 minutes from the time incident is detected by SIEM or from the time the Client provides a proof of compromise (POC) incident report, whichever comes first, up to the creation of service ticket.</td> </tr> </tbody> </table>  |   | Service Level Target  | Description   | 98%       | Acknowledgement SLA of 15 minutes from the time incident is detected by SIEM or from the time the Client provides a proof of compromise (POC) incident report, whichever comes first, up to the creation of service ticket. | Y                 |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| Service Level Target   | Description   |   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| 98%  | Acknowledgement SLA of 15 minutes from the time incident is detected by SIEM or from the time the Client provides a proof of compromise (POC) incident report, whichever comes first, up to the creation of service ticket. |   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| <p>2. Incident Response SLA - Time to respond or provide request from when incident or request is reported based on severity level.</p> <table border="1"> <thead> <tr> <th>Priority Level</th> <th>Incident Response Time</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>P1 - Catastrophic</td> <td>Within 60 minutes</td> <td rowspan="4">From the creation of service ticket up to triage. Triage is when the SOC L2 Incident Responder communicates with the client to further investigate and provide recommendation on how to contain, remediate, and recover from the security incident.</td> </tr> <tr> <td>P2 - Critical</td> <td>Within 90 minutes</td> </tr> <tr> <td>P3 - Marginal</td> <td>Within 120 minutes</td> </tr> <tr> <td>P4 - Negligible</td> <td>Within 180 minutes</td> </tr> </tbody> </table><br><table border="1"> <thead> <tr> <th colspan="4">Target Response Time % per Month</th> </tr> <tr> <th>Incident Priority</th> <th>1 and 2</th> <th>3 and 4</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>&gt;=90%</td> <td>&gt;=80%</td> <td>Sum of the number of incidents meeting required Response Time for all days in the month</td> </tr> </tbody> </table> |   | Priority Level  | Incident Response Time  | Reference | P1 - Catastrophic   | Within 60 minutes | From the creation of service ticket up to triage. Triage is when the SOC L2 Incident Responder communicates with the client to further investigate and provide recommendation on how to contain, remediate, and recover from the security incident. | P2 - Critical | Within 90 minutes | P3 - Marginal | Within 120 minutes | P4 - Negligible | Within 180 minutes | Target Response Time % per Month |  |  |  | Incident Priority | 1 and 2 | 3 and 4 |  |  | >=90% | >=80% | Sum of the number of incidents meeting required Response Time for all days in the month | Y |
| Priority Level   | Incident Response Time  | Reference   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| P1 - Catastrophic  | Within 60 minutes   | From the creation of service ticket up to triage. Triage is when the SOC L2 Incident Responder communicates with the client to further investigate and provide recommendation on how to contain, remediate, and recover from the security incident. |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| P2 - Critical  | Within 90 minutes   |   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| P3 - Marginal  | Within 120 minutes  |   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| P4 - Negligible  | Within 180 minutes  |   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| Target Response Time % per Month   |   |   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
| Incident Priority  | 1 and 2   | 3 and 4   |   |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |
|  | >=90%   | >=80%   | Sum of the number of incidents meeting required Response Time for all days in the month |           |   |                   |   |               |                   |               |                    |                 |                    |                                  |  |  |  |                   |         |         |  |  |       |       |   |   |

## II. Non-functional Requirements

| A. Access Management  | COMPLETED<br>Y/N | REMARKS |
|---|------------------|---------|
| 1. All credentials with the service provider shall be stored in a monitored central management system. These are leased to the agencies once strong authentication has been implemented and for the specific task for which it was authorized.  | Y                |         |
| 2. The service provider's solution shall be accessed through a centralized portal, which enforces session timeouts, mandates the use of multi-factor authentication (MFA), and provides anomaly detection for monitoring user behavior.   | Y                |         |
| 3. The service provider shall maintain logical access controls which are role-based, including principles of least privilege and segregation of duties.   | Y                |         |
| 4. All passwords must have a minimum of fifteen (15) characters. Passwords must be changed every ninety (90) days and cannot be the same as the prior three (3) passwords. The service provider's system must mask passwords when entered and store password files separately from the application system data. Only encrypted hashes of passwords may be stored and transmitted. | Y                |         |
| 5. All access from the service provider's managed endpoints to sensitive resources shall be done via VPN configured with MFA. Opportunistic Transport Layer Security (TLS) is configured by default for e-mail. Remote hardware is managed by comprehensive enterprise management software that allows for maintenance and access control management.                             | Y                |         |
| 6. The service provider shall provide physical and environmental controls at the primary and secondary sites for this project.  | Y                |         |
| 7. The agencies data shall be logically separated by using unique tagging to ensure segregation of data from the other agencies. The agencies should retain as the legal owner of the data processed and managed by the service provider.   | Y                |         |
| B. Training and Other Requirements  | COMPLETED<br>Y/N | REMARKS |
| 1. The service provider should facilitate at least once a year Continual Service Improvement (CSI) workshop with client for possible improvement of service through process, people and technology.   | Y                |         |
| 2. The service provider should provide security advisories with the client for the cybersecurity news and updates like the latest viruses, trojans, worms, or other malicious programs.   | Y                |         |
| 3. The service provider shall conduct an annual cyber security maturity assessment (i.e., people, process, and technology) on each Government Agency based on the NIST or CIS Controls.   | Y                |         |

| C. Service Provider's Qualification and Requirements<br><i>Note: Submission of required documents shall be during the submission of bids.</i>  | COMPLETED<br>Y/N | REMARKS |
|--|------------------|---------|
| 1. The service provider must be a certified/authorized reseller of the brand(s) being offered and shall submit a valid, certification from the manufacturer(s).  | Y                |         |
| 2. The service provider must submit the following certifications:<br>a. For Cloud based Security Operations Center (SOC), that this is hosted in a provider categorized as a leader either in the latest Forrester Wave™: Public Cloud Development And Infrastructure Platforms report or Gartner Magic Quadrant for Cloud Infrastructure and Platform Services;<br>b. For Endpoint Detection and Response (EDR), that solution is categorized as a leader either in the latest Forrester Wave™ report for Enterprise Detection and Response or Gartner Magic Quadrant for Endpoint Protection Platforms;<br>c. For Security Information and Event Management (SIEM), the solution provided is categorized as a leader in the latest Forrester Wave™ report for Security Analytics Platforms or Gartner Magic Quadrant for Security Information and Event Management (SIEM). | Y                |         |
| 3. The service provider must have 24 x 7 x 365 local technology operation center (SOC/NOC facilities/infrastructure and service), with a pool of at least 20 IT or Information Security related certified onsite support engineers within Metro Manila. A list of the support engineers shall be provided with their required qualifications, as stated in Item D. Personnel Qualifications / Requirements.  | Y                |         |
| 4. The service provider must have sales and technical offices located in the Philippines. The service provider should submit the list of their sales and technical offices in the Philippines, including the complete address and contact details. This is subject for actual site visit to the facility.  | Y                |         |
| 5. The SOC can be provided on the cloud or within the premises of the service provider. Should the Security Operations Center (SOC) with their SOC analysts be on premise, they should be housed in a Data Center with TIA-942 Rated 3 Facility Certification or any equivalent third party assessment indicating the capability of the SOC to provide the required security, scalability, stability and high performance. The proof of compliance shall be submitted.<br>6. However, if the service provider's SOC will be implemented through a cloud service provider (CSP), the SOC platform must be guaranteed with at least 99.9% uptime or availability. The proof of compliance shall likewise be submitted.   | Y                |         |
| 7. The service provider's SOC Analysts must have at least one or more of the following certifications: Certified Ethical Hacker (CEH), CyberSec First Responder, Information Technology Infrastructure Library (ITIL), or any relevant product certification to the security products of the platform offered by the Service Provider.   | Y                |         |
| 8. The service provider must be at least five (5) years in Security and ICT Industry and must have more than three (3) years of experience in providing SOC services. The Service provider must have a SOC 2 Type II Attestation Report or ISO 27001 certification for   | Y                |         |



|   |   |  |
|---|---|--|
| Managed ICT Services or similar, done at least in 2021, to ensure controls related to security, availability, processing integrity, confidentiality and privacy are in place.                     | Y |  |
| 9. The prospective bidders shall be required during the post qual evaluation to demonstrate the salient features of the proposed Shared Cyber Defense solution at the Project Site or via online. | Y |  |

| D: Personnel Qualifications/Requirements   | COMPLIED<br>Y/N | REMARKS |
|--|-----------------|---------|
| <p>1. The service provider must have at least Two (2) local Certified Engineer on each of the following security tools below:</p> <ul style="list-style-type: none"> <li>• SOAR</li> <li>• SIEM</li> <li>• Vulnerability Management</li> </ul> <p>The certification must be the same with the brand that is being proposed.</p>  | Y               |         |
| <p>2. The service provider must assign a dedicated local SOC Manager that oversees the SOC and conducts regular monthly service performance review and reporting to client's management. A monthly service performance report shall be submitted and discussed by the SOC Manager. It shall contain the following:</p> <ul style="list-style-type: none"> <li>• SLA Performance</li> <li>• Correlated Events Overview</li> <li>• Correlated Events Graph Distribution Over Time</li> <li>• Correlated Events and Rules Triggered Summary</li> <li>• Summary of Incident Ticket per Use Cases Incident Management</li> </ul> <p>The service provider must also assign a dedicated Project Manager that will oversee the project implementation. A monthly project monitoring report shall be submitted and discussed by the Project Manager until the completion of the Phase I and Phase II of the project as defined in the Delivery Time/Completion Schedule. The Project Manager shall be required to be onsite in any agency, by schedule, if necessary.</p> | Y               |         |
| <p>3. The service provider must submit the following for all the personnel to be assigned to the cluster, and failure to submit the any of the requirement below is subject for disqualification.</p> <ul style="list-style-type: none"> <li>• Resume/CV of the Proposed Personnel</li> <li>• Company ID</li> <li>• Certificate of employment</li> </ul>   | Y               |         |
| <p>4. The service provider must have a dedicated 24x7x365 team assigned to the cluster, composed of at least:</p> <ul style="list-style-type: none"> <li>• 2-Tier 1 analyst who will be responsible for the following tasks: <ul style="list-style-type: none"> <li>1. Monitoring via existing SIEM/Analytics Platform</li> <li>2. Funneling of alerts (noise elimination)</li> <li>3. Incident Validation</li> <li>4. Case Management</li> </ul> </li> </ul>  | Y               |         |

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|--|---|--|
| <ul style="list-style-type: none"> <li>5. Threat Containment (Using Existing EDR or agreed process) – with guidance from L2 and up</li> <li>6. General Communication</li> <li>7. Weekly Summary Reports</li> <li>• 1-Tier 2 analyst who will be responsible to conduct further analysis and decides on a strategy for containment. <ul style="list-style-type: none"> <li>1. Proactive Searches/ Threat Hunting</li> <li>2. Qualification of Incident Priority/Severity</li> <li>3. Investigation via SIEM/Analytics Platform and other accessible sources</li> <li>4. Rule Tuning</li> <li>5. Ad hoc Vulnerability Advisory &amp; Research</li> <li>6. Threat Containment (Using Existing EDR or agreed process)</li> <li>7. Incident Response/Recommendations</li> </ul> </li> <li>• 1-Tier 3 senior analyst who will be responsible to manage critical incidents. Tier 3 analysts are also responsible for actively hunting for threats and assessing the vulnerability of the business. <ul style="list-style-type: none"> <li>1. Manage High Severity Triage</li> <li>2. Incident Response and Forensics Capabilities</li> <li>3. Threat Containment (Using Existing EDR or agreed process)</li> <li>4. Reporting and Post Incident Review</li> <li>5. Use Case Development</li> <li>6. Threat Searches</li> <li>7. New Correlation Rules</li> </ul> </li> <li>• 1-Tier 4 analyst or the SOC manager, who will be in charge of strategy, priorities and the direct management of SOC staff when major security incidents occur. The SOC manager will also be responsible for the management of the MSOC operations for the agency and cluster.</li> </ul> | y |  |
| <p>5. The service provider should ensure that there will be alternate personnel deployed to the cluster should the primary personnel be unavailable for whatever reason. The service provider shall be allowed to augment the dedicated personnel with foreign support staff from partners (hybrid) as long as the minimum staffing requirements are met.</p>  | y |  |
| <p>6. Qualifications</p>   | y |  |
| <ul style="list-style-type: none"> <li>• Project Manager: <ul style="list-style-type: none"> <li>• Must be with the service provider's organization at least one (1) year before the bid opening</li> <li>• Has handled project management for at least two (2) financial corporations or should have at least two (2) successful project implementations of at least Php 20M in amount in the last two (2) years.</li> <li>• Must provide a list of projects handled in the last 5 years, indicating the Project Name, Project Duration (Start date and end-date) and Contact Person with details for verification.</li> <li>• Must have a valid project management certification</li> </ul> </li> </ul>  | y |  |

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|---|--|--|
| <ul style="list-style-type: none"> <li>• SOC Manager/Tier 4 Analyst: <ul style="list-style-type: none"> <li>• Must be with the service provider's organization one (1) year before the bid opening</li> <li>• Has performed and managed three (3) engagements within the last five (5) years comparable to the proposed engagement</li> <li>• Must have at least five (5) years active IT security experience</li> <li>• Must have at least three (3) years SIEM or system and network administration experience.</li> <li>• Has any two (2) of the following unexpired professional certifications: Certified Information Systems Auditor (CISA), Certified Information Security Manager (CISM), GIAC Security Essentials (GSEC), GIAC Continuous Monitoring (GMON), GIAC Certified Detection Analyst (GCDA), GIAC Web Application Penetration Tester (GWAPT), GIAC Incident Handler (GCIH), GIAC Certified Forensic Analyst (GCFA), GIAC Certified Intrusion Analyst (GCIA), Cisco Certified Network Associate (CCNA), Information Technology Infrastructure Library (ITIL), Certified Ethical Hacker (CEH), Computer Hacking Forensic Investigator (CHFI), Certified Network Defense Architect (CNDA), CyberSec First Responder (CFR), CompTIA Security+, Certified Vulnerability Assessor (CVA), Offensive Security Certified Professional (OSCP), Certified Information System Security Professional (CISSP), Global Information Assurance Certification (GIAC) Penetration Tester (GPEN), GIAC Exploit Researcher &amp; Advanced Penetration Tester (GXPN), EC-Council Licensed Penetration Tester (LPT) Master, Certified Penetration Tester (CPT), Certified Expert Penetration Tester (CEPT), Certified Mobile and Web Application Penetration Tester (CMWAPT), CompTIA PenTest+, Certified Payment Card Industry Security Implementer (CPISI), or other security-related certifications.</li> </ul> </li> </ul> |  |  |
| <ul style="list-style-type: none"> <li>• Team Lead/Tier 3 Analyst: <ul style="list-style-type: none"> <li>• Must be with the service provider's organization one (1) year before the bid opening</li> <li>• Has functioned as lead in the performance of three (3) engagements within the last five (5) years comparable to the proposed engagement</li> <li>• Must have at least five (5) years active IT security experience</li> <li>• Must have at least three (3) years SIEM or system and network administration experience</li> <li>• Has any two (2) of the following unexpired professional certifications: CISA, CISM, GSEC, GMON, GCDA, GWAPT, GCIH, GCFA, GCIA, CCNA, ITIL, CEH, CHFI, CNDA, CFR, CompTIA Security+ CVA, OSCP, CISSP, GPEN, GXPN, LPT Master, CPT, CEPT, CMWAPT, CompTIA PenTest+, CPISI, or other security-related certifications.</li> </ul> </li> </ul>  |  |  |

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| <ul style="list-style-type: none"> <li>• Team Member/Tier 2 or Tier 1 Analyst <ul style="list-style-type: none"> <li>• Must be with the service provider's organization one (1) year before the bid opening</li> <li>• Has performed three (3) engagements within the last five (5) years comparable to the proposed engagement</li> <li>• Must have at least three (3) years active IT security experience</li> <li>• Must have at least three (3) years SIEM or system and network administration experience</li> <li>• Has at least one (1) of the following unexpired professional certifications: CISA, CISM, GSEC, GMON, GCDA, GWAPT, GCIH, GCFA, GCIA, CCNA, ITIL, CEH, CHFI, CNDA, CFR, CompTIA Security+ CVA, OSCP, CISSP, GPEN, GXPN, LPT Master, CPT, CEPT, CMWAPT, CompTIA PenTest+, CPISI, or other security-related certifications.</li> </ul> </li> </ul> | } 7 |
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NOTE: PLEASE SEE ATTACH DETAILED TOR RESPONSE

#### 4. Delivery Time/Completion Schedule

The Project must be implemented by phases. Phase 1 - Threat Intelligence, Security Monitoring and Management and Incident Response , 120 working days from the issuance of the Notice to Proceed, Phase 2- Vulnerability Management, 90 working days from the issuance of the Notice to Proceed . Commencement date will be from the receipt of Notice To Proceed (NTP) by the winning bidder. The vendor must therefore provide a project schedule which should present the project milestones and deliverables at each milestone. License subscriptions will start upon implementation.

All deliverables shall become the property of the concerned agencies.

#### 5. Payment Milestone

The Service provider shall be paid upon receipt of its deliverables, based on the submitted Project Schedule and issuance of the Certificate of Acceptance from the Insurance Cluster. The Service Provider shall be paid based on the following milestones:


| Milestone  | Percentage of the Total Contract Price |
|--|--|
| <b>Year 1:</b>   |  |
| Upon implementation of Threat Intelligence, Security Monitoring & Management and Incident Response for the Insurance Cluster (Phase 1)   | 15%                                    |
| After Phase 1 and upon implementation of Vulnerability Management for the Insurance Cluster (Phase 2)  | 15%                                    |
| After Phase 2 and upon full implementation of the Shared Defense Solution and Insurance Cluster issuance of Certificate of Completion and Acceptance of the License subscription covering the first 12 months (1st Year) | 20%                                    |
| <b>Year 2:</b>   |  |
| Two (2) semi-annual payments at 25% each   | 50%                                    |
| TOTAL  | 100%                                   |

NOTE: PLEASE SEE ATTACH DETAILED TOR RESPONSE

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**SHARED CYBER DEFENSE SOLUTION Project**

**Bureau of the Treasury:**

| NAME                        | SIGNATURE  |
|-----------------------------|--|
| Mr. David Andrei P. de Mesa |  |


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**Government Service Insurance System:**

| NAME                | SIGNATURE  |
|---------------------|--|
| Mr. Jonathan Pineda |  |



**Social Security System:**


| NAME                  | SIGNATURE  |
|-----------------------|--|
| Ms. Jocelyn Dela Peña |  |





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**Philippine Deposit Insurance Corporation:**

| NAME                       | SIGNATURE  |
|----------------------------|--|
| Ms. Maria Belinda San Jose | <br>Digitally signed<br>by San Jose<br>Maria<br>Belinda San<br>Jose<br>Date:<br>2023.04.27<br>20:17:47 +0800 |



|  | Complied (Y/N) | Remarks  |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
|--|----------------|--|-----|----------|-------------------|-------------|-------------|--------|-----|----------|----------------|----|----|----|----|-------------------|-----------------|----|----|----|----|-------------------|-----------------|----|----|----|----|-----|----------|----|----|----|----|-----|---|---|
| <b>I. Functional Requirements</b>  |                |  |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| <b>A. Security Monitoring and Management</b>   |                |  |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| <b>A.1 Security Operations Center (SOC)</b>  |                |  |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| 1. The service provider shall provide a cloud-based SOC for individual agencies with complete Security Information and Event Management (SIEM) and Security Orchestration, Automation, and Response (SOAR) solution that allows for two-way integration with the agencies data sources, capture of near real-time log data, and must perform correlation between data sources during investigation which shall also be accessible by the individual agencies. The licenses for the SIEM and SOAR solution shall be subscribed per agency during the term of contract.  | Y              | Trends will deploy cloud-based SOC solutions that include Splunk (SIEM) and Google Chronicle SOAR. Furthermore, TRENDS will also deploy CrowdStrike (EDR), ExtraHop (NDR), Threat Intelligence Platform, and Vulnerability Management Platform. These cloud-based solutions will be integrated by Splunk to ensure real-time capture of log data and correlate among data sources during investigation.<br><br>These platforms will be accessible by individual agencies through SIEM and SOAR.<br><br>Refer to Bill of Materials.   |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| 2. The service provider shall set up a cluster level SOC dashboard to have an integrated and high level overview of the cluster agencies security posture.   | Y              | Trends will leverage on the SOC platform's dashboard in creating cluster-level SOC out-of-the-box or other dashboard template to have an integrated and high level overview of the cluster agencies security posture.<br><br>Please see document: TRENDS_REFERENCE MATERIALS_v1.0_TLPGREEN.docx, page 26 - ANNEX 21 SAMPLE SOC DASHBOARDS  |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| 3. The SOC, through the SIEM, shall detect and monitor threats, correlate with threat intelligence sources, generate alerts, conduct investigation, and escalate tickets to the agencies on a 24x7 basis, using the Security Operations Center (SOC) platform, inclusive of the security tools to be provisioned for the agencies.   | Y              | Trends' SOC team, utilizing the SIEM platform and other security solutions to be provisioned for the agencies, will provide a 24x7 monitoring and support to detect, monitor, correlate, generate, investigate, and escalate tickets.<br><br>Please see document: TRENDS_INCIDENT MANAGEMENT PSPG_v1.0_TLPGREEN.docx, page 4 - 1.1 Overview, page 12 - Identification of Incident  |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| 4. There must be a proper onboarding and integration period between the service provider and the agencies prior to full SOC operation to ensure completeness of SOC visibility and familiarization with the agencies processes and network behavior.   | Y              | Trends will conduct Client Onboarding to establish the service delivery processes and to ensure completeness of SOC visibility and familiarization with clients' processes and network behaviors.<br><br>Once the solution has been implemented, Trends will conduct process discovery and workshop, develop use cases, create playbooks and runbooks, and conduct tabletop exercises with the client.<br><br>Please see document: TRENDS_Project Management Program Plan for Govt Insurance Cluster_v1.0<br><br>Please see document: TRENDS_REFERENCE MATERIALS_v1.0_TLPGREEN.docx, page 18 - Annex 14 - Sample Onboarding Presentation |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| 5. The SOC solution shall have its own ticketing tool for incident ticket generation.  | Y              | Trends shall use the provided case management to capture and track incidents and facilitate routing to appropriate resolving groups.<br><br>Please see document: TRENDS_REFERENCE MATERIALS_v1.0_TLPGREEN.docx, page 17 - Annex 13 - Ticketing Tool  |     |          |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| 6. The SOC solution, through the SIEM, shall classify security events based on the following risk rating matrix containing the following information. The report method shall be thru call and/or e-mail:<br><br><table border="1" data-bbox="306 901 771 1013"> <thead> <tr> <th rowspan="2">Response Time</th> <th colspan="4">Impact</th> <th rowspan="2">Report Time</th> </tr> <tr> <th>High</th> <th>Medium</th> <th>Low</th> <th>Very Low</th> </tr> </thead> <tbody> <tr> <td>Within 2 hours</td> <td>P1</td> <td>P2</td> <td>P2</td> <td>P3</td> <td>within 15 minutes</td> </tr> <tr> <td>Within 12 hours</td> <td>P2</td> <td>P2</td> <td>P3</td> <td>P3</td> <td>within 10 minutes</td> </tr> <tr> <td>Within 24 hours</td> <td>P2</td> <td>P3</td> <td>P3</td> <td>P4</td> <td>N/A</td> </tr> <tr> <td>24 hours</td> <td>P3</td> <td>P3</td> <td>P4</td> <td>P4</td> <td>N/A</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>- Impact: Severity of the security event to critical assets</li> <li>- Priority: Based on the Impact and severity</li> <li>- Nature of threat</li> <li>- Potential business impact</li> <li>- Remediation recommendations</li> </ul> <p>*Response Time: How soon the security incident must be acknowledged by the service provider<br/> *Report Time: How soon a reference number/ problem ticket must be created by the service provider and received by the agency. The Report Time is included in the Response Time.</p> | Response Time  | Impact   |     |          |                   | Report Time | High        | Medium | Low | Very Low | Within 2 hours | P1 | P2 | P2 | P3 | within 15 minutes | Within 12 hours | P2 | P2 | P3 | P3 | within 10 minutes | Within 24 hours | P2 | P3 | P3 | P4 | N/A | 24 hours | P3 | P3 | P4 | P4 | N/A | Y | Incidents may be assessed for its priority categorization (as per defined response priority level based on business rules with the client during the Service On-Boarding process). Assessment shall be made by the Incident Manager in accordance with the SLA.<br><br>Please see document: TRENDS_REFERENCE MATERIALS_v1.0_TLPGREEN.docx, page 3 - Annex 2 - Asset Valuation & Categorization (excerpt from Operations Integration Document)<br><br>Please see document: TRENDS_INCIDENT MANAGEMENT PSPG_v1.0_TLPGREEN.docx, page 15 -16 - Section 6.10.3. Priority Escalation & De-escalation<br><br>For the Impact, Urgent, and Priority Criteria, please see document: TRENDS_INCIDENT MANAGEMENT PSPG_v1.0_TLPGREEN.docx, page 26 - Annex 1 - TRENDS Operations Center Impact Criteria, Urgency Criteria and Priority Matrix<br><br>For the SLA, please see document: TRENDS_INCIDENT MANAGEMENT PSPG_v1.0_TLPGREEN.docx, page 27 - Annex 2 - TRENDS Operations Center Incident Response & Update Time<br><br>For the report method, Trends follows Incident Reporting Process, please see document: TRENDS_INCIDENT MANAGEMENT PSPG_v1.0_TLPGREEN.docx, page 16 - Section 6.10. Common Procedures<br><br>Trends follows Typical Incident Handling Procedure for Information Security Incident, please see document: TRENDS_INCIDENT MANAGEMENT PSPG_v1.0_TLPGREEN.docx, page 17 - Typical Incident Handling Procedure for Information Security Incident |
| Response Time  |                | Impact   |     |          |                   |             | Report Time |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
|  | High           | Medium   | Low | Very Low |                   |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| Within 2 hours   | P1             | P2   | P2  | P3       | within 15 minutes |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| Within 12 hours  | P2             | P2   | P3  | P3       | within 10 minutes |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| Within 24 hours  | P2             | P3   | P3  | P4       | N/A               |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |
| 24 hours   | P3             | P3   | P4  | P4       | N/A               |             |             |        |     |          |                |    |    |    |    |                   |                 |    |    |    |    |                   |                 |    |    |    |    |     |          |    |    |    |    |     |   |   |

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| <p>7. Monthly monitoring service management:<br/>The service provider shall conduct regular meetings with the agencies IT stakeholders to review SOC performance and discuss the overall IT security posture of the agencies, including fine-tuning of configurations and provision of best practices advice, to aid in continuous improvement. Regular written reports must also be available to track the status of cases and the assistance needed.<br/>Monthly reports shall contain, but not limited to:</p> <ul style="list-style-type: none"> <li>- SLA Performance</li> <li>- Correlated Events Overview</li> <li>- Correlated Events Graph Distribution Overtime</li> <li>- Correlated Events and Rules Triggered Summary</li> <li>- Summary of Incident Ticket per Use Cases Incident Management</li> </ul> | Y | <p>Trends will assign a dedicated local SOC Manager that will oversee the SOC and conduct regular monthly service performance review and reporting to client's management. The monthly service performance report which contains the status of cases and the assistance needed from the client, will be submitted and discussed by the SOC Manager. The monthly service performance report will include the following:</p> <ul style="list-style-type: none"> <li>- SLA Performance</li> <li>- Correlated Events Overview</li> <li>- Correlated Events Graph Distribution Overtime</li> <li>- Correlated Events and Rules Triggered Summary</li> <li>- Summary of Incident Ticket per Use Cases Incident Management</li> </ul> <p>Trends shall conduct regular meetings with the agencies IT stakeholders to review SOC performance and discuss the overall IT security posture of the agencies, including fine-tuning of configurations and provision of best practices advice, to aid in continuous improvement. The monthly service performance report will be discussed during this regular meetings.</p> <p>Please see document: TRENDS_Project Management Program Plan for Govt Insurance Cluster_v1.0.docx</p> <p>Please see document: TRENDS_REFERENCE MATERIALS_v1.0_TLPGREEN.docx, page 16 - Annex 12 - Sample Monthly Reports</p>   |
| <p>8. The service provider shall ensure flexibility and scalability of the agencies SOC platform and shall ingest and process all events sent by the agencies for the SIEM and SOAR requirements including its current and future needs.</p>  | Y | <p>The proposed SIEM and SOAR platforms of Trends are cloud-based solutions which are inherently flexible and scalable to accommodate multiple tenants, and each clients can easily expand and increase logs process and data ingestion. For this solution, the current license subscription and data ingestion are based on the required 2 years for SOAR and data ingestion license described in the SIEM portion section on the maximum aggregate daily data ingestion table;</p> <p>Refer to Bill of Materials.</p> <p>Splunk Cloud Platform is built to scale to your data analytics needs, ranging from GBs to PBs and beyond. Designed to facilitate sudden bursts in data volume, Splunk Cloud Platform allows you to incrementally upgrade capacity while retaining security by design.</p> <p>Refer to page 1, Face the Unexpected with the Stability and Resiliency of Resiliency of Splunk Cloud Platform.pdf<br/>Source: <a href="https://www.splunk.com/en_us/blog/platform/face-the-unexpected-with-the-stability-and-resiliency-of-splunk-cloud-platform.html">https://www.splunk.com/en_us/blog/platform/face-the-unexpected-with-the-stability-and-resiliency-of-splunk-cloud-platform.html</a></p> <p>Deploy, maintain and scale with ease. Chronicle SOAR is designed for fast initial time-to-value and ease of scaling as you grow. Pre-packaged use cases, an intuitive playbook builder, and powerful playbook lifecycle management enable teams to hit the ground running and ensure that over time SOAR increases in value, not complexity.</p> <p>Refer to page 1, datasheet-chronicle-soar.pdf<br/>Source: <a href="https://services.google.com/fh/files/misc/datasheet-chronicle-soar.pdf">https://services.google.com/fh/files/misc/datasheet-chronicle-soar.pdf</a></p> |
| <p>9. The service provider shall facilitate SOC security briefing at least once a month for the agencies to present the latest local and international news and updates in Cyber security.</p>  | Y | <p>Trends will also provide regular email advisory and intelligence summary reports on the latest local and international news, latest cyber threats, and updates in Cyber security space, including detected information on the intention to target agencies or other government industries, major activist campaigns, and indications of activism against the agencies, financial and health sector, and the government.</p> <p>During monthly service performance review, Trends will facilitate SOC security briefings to IT and CxOs and key decision-makers to discuss the intelligence summary reports and to share emerging technology trends and the risks associated with it, new regulations, complexity and sophistication of threats, requirement for companies to cyber-resilient among others.</p> <p>Please see document: TRENDS_Project Management Program Plan for Govt Insurance Cluster_v1.0</p> <p>Please see document: TRENDS_REFERENCE MATERIALS_v1.0_TLPGREEN.docx, page 19 - Annex 15 - Sample Security Briefing Presentation</p>   |

| A.2 Managed Detection and Response  |   |   |
|---|---|---|
| A.2.1 Deployment and Management   |   |   |
| <p>1. The service provider shall supply Managed Detection and Response services, including the Endpoint Protection / Endpoint Detection and Response (EDR) licenses required for supported endpoints. Supported endpoints refer to Windows endpoints, Windows servers, major Unix and Linux distributions, MacOS, Mobile devices, that is still under support or extended support by the manufacturer.</p>  | Y | <p>The single, lightweight agent can be downloaded and installed for Windows, Mac and Linux to deliver complete protection without impacting resources or productivity.</p> <p>Refer to page 2, CrowdStrike's Platform Simplifies Deployment and Enhances Security.pdf<br/>Source: <a href="https://www.crowdstrike.com/blog/tech-center/crowdstrike-falcon-uses-powerful-platform-simplify-deployment-enhance-security/">https://www.crowdstrike.com/blog/tech-center/crowdstrike-falcon-uses-powerful-platform-simplify-deployment-enhance-security/</a></p> <p>See list of supported Windows OS versions.</p> <p>Refer to page 1, CrowdStrike - Supported Windows operating system.pdf<br/>Source: <a href="https://www.crowdstrike.com/products/faq/">https://www.crowdstrike.com/products/faq/</a></p> <p>See list for the supported Linux versions.</p> <p>Refer to pages 1-4, What is CrowdStrike_FAQ_CrowdStrike - Linux.pdf<br/>Source: <a href="https://www.crowdstrike.com/products/faq/">https://www.crowdstrike.com/products/faq/</a></p> <p>See list for the supported macOS versions.</p> <p>Refer to page 1, CrowdStrike - Supported macOS operating system.pdf<br/>Source: <a href="https://www.crowdstrike.com/products/faq/">https://www.crowdstrike.com/products/faq/</a></p> <p>Falcon for Mobile - Providing mobile endpoint detection and response (EDR) for iOS and Android</p> <p>Refer to page 1, crowdstrike-falcon-for-mobile-data-sheet.pdf</p> <p>For other operating system types that are not mentioned above, monitoring, detection and response shall be carried out by the Network Detection and Response system.<br/>It can discover and identify any device that communicates on the network and identify whether the Falcon agent is installed on the device by observing network traffic, helping customers ensure complete coverage, and security detection and response capabilities —even for unmanaged or unmanageable devices.</p> <p>Refer to page 2, crowdstrike-extrahop-data-sheet.pdf</p> <p>Refer to Bill Of Materials.</p> |
| <p>2. The solutions provider must be capable to deploy the endpoint technology to workstations and servers, including Windows, Mac, Unix and Linux assets, using the agencies or the solutions providers deployment tool, and must support both physical and virtual environments.</p>  | Y | <p>The single, lightweight agent can be downloaded and installed for Windows, Mac and Linux to deliver complete protection without impacting resources or productivity.</p> <p>Refer to page 1, CrowdStrike's Platform Simplifies Deployment and Enhances Security.pdf<br/>Source: <a href="https://www.crowdstrike.com/blog/tech-center/crowdstrike-falcon-uses-powerful-platform-simplify-deployment-enhance-security/">https://www.crowdstrike.com/blog/tech-center/crowdstrike-falcon-uses-powerful-platform-simplify-deployment-enhance-security/</a></p>  |
| <p>3. For non-supported systems, other means of monitoring must be performed, such as network detection and response (NDR or similar) tool shall be provided. The NDR shall use a standard network interface which may be 1G or 10G. The service provider, however, is expected to make the necessary adjustment during the actual project implementation with the member agency. For the NDR with throughput 5G and above, a dual power supply unit (PSU) shall be required.</p> | Y | <p>Reveal(x) 360 can discover and identify any device that communicates on the network and identify whether the Falcon agent is installed on the device by observing network traffic, helping customers ensure complete coverage, and security detection and response capabilities — even for unmanaged or unmanageable devices.</p> <p>Refer to page 2, crowdstrike-extrahop-data-sheet.pdf</p> <p>For Reveal (x) 360 network interface<br/>EDA 1200 - 1Gbps</p> <p>Refer to page 1,3, NDR-network interface-datasheet.pdf</p> <p>Refer to Bill of Materials.</p>  |

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| <p>4. The solution shall detect and prevent attacks on-premise, for supported and unsupported endpoints, including agency deployments in public clouds, if any, such as, but not limited to Amazon Web Services (AWS), Azure, Oracle Cloud and Google Cloud.</p>                                     | <p>Y</p> | <p>Falcon Prevent offers powerful and comprehensive prevention capabilities. Falcon Prevent can stop execution of malicious code, block zero-day exploits, kill processes and contain command and control callbacks.</p> <p>Refer to page 6, Comprehensive prevention.pdf<br/>Source: <a href="https://www.crowdstrike.com/products/faq/">https://www.crowdstrike.com/products/faq/</a></p> <p>CrowdStrike works in all types of data centers, including on-prem, hybrid, and cloud. Falcon also works in multiple cloud platform environments, including Amazon AWS, Google Cloud Platform and Microsoft Azure. The Falcon sensor also supports Windows, Linux and macOS at the kernel level, on bare metal or as a VM, with minimal impact.</p> <p>Refer to page 1, Detect and Prevent attacks.pdf<br/>Source: <a href="https://www.crowdstrike.com/blog/tech-center/install-falcon-datacenter/">https://www.crowdstrike.com/blog/tech-center/install-falcon-datacenter/</a></p> <p>Reveal(x) 360 can discover and identify any device that communicates on the network and identify whether the Falcon agent is installed on the device by observing network traffic, helping customers ensure complete coverage, and security detection and response capabilities — even for unmanaged or unmanageable devices.</p> <p>Refer to page 2, crowdstrike-axdrahop-data-sheet.pdf</p>   |
| <p>5. The solution shall be capable to block malicious indicators of compromise (IOCs) and behaviors of compromise (BOCs) automatically with expert review of detections by analysts to ensure there is always human oversight on technology.</p>  | <p>Y</p> | <p>Falcon Prevent protects endpoints against all types of attacks, from commodity malware to sophisticated attacks — even when offline.</p> <ul style="list-style-type: none"> <li>- Machine learning and artificial intelligence prevent known and unknown malware, adware and potentially unwanted programs (PUPs)</li> <li>- Behavior-based Indicators of attack (IOAs) prevent sophisticated attacks, including ransomware and fileless and malware-free attacks</li> </ul> <p>Refer to Page 2, Data-Sheet-Falcon-Prevent.pdf</p> <p>Falcon Insight uses indicators of attack (IOAs) to automatically identify attacker behavior and sends prioritized alerts to the Falcon user Interface (UI), eliminating time-consuming research and manual searches.</p> <p>Refer to Page 1, FALCON INSIGHT- ENDPOINT DETECTION AND RESPONSE.pdf</p> <p>Falcon Complete Expertise.<br/>Provides expert security analysts to manage, monitor, respond to and remediate threats.</p> <p>Refer to page 2, crowdstrike-falcon-complete-data-sheet.pdf</p> <p>Indicators of Compromise Explained</p> <p>Refer to pages 9-13, What are Indicators of Compromise_ IOC Explained - CrowdStrike.pdf<br/>Source: <a href="https://www.crowdstrike.com/cybersecurity-101/indicators-of-compromise/">https://www.crowdstrike.com/cybersecurity-101/indicators-of-compromise/</a></p>   |
| <p>6. The solution shall allow custom enforcement policies to neutralize sophisticated malware and lateral movement utilizing "living off the land" techniques that can potentially evade standard detections, however, ensuring that these custom policies does not impede business operations.</p> | <p>Y</p> | <p>Custom IOAs enable you to define unique behaviors to block.</p> <p>Refer to Page 1 of Custom IOAs - Prevent.pdf</p> <p>Custom Indicators of Attack are used to create organization specific rules in addition to the protections provided by CrowdStrike. These additional detections and preventions can be defined based on specific tools and expected behaviors to further enhance the value of the Falcon platform for your organization.</p> <p>Refer to Page 1 of How to Create Custom Rules with CrowdStrike.pdf<br/>Source: <a href="https://www.crowdstrike.com/blog/tech-center/custom-ioas/">https://www.crowdstrike.com/blog/tech-center/custom-ioas/</a></p> <p>If you're living off the land, there are a few different methods you can use to survive, but you need to use what you find where you are. You do not have the option to bring in supplies to maintain yourself. If you are looking for someone living off the land, you must hunt — as they have blended into their new environment.</p> <p>Having techniques in play to detect and respond to ongoing attacks quickly is just as important as prevention. Here are a few options organizations can use:</p> <ul style="list-style-type: none"> <li>- Stopping "Silent Failure"</li> <li>- Account Monitoring</li> <li>- Application Inventory</li> <li>- Asset Inventory</li> </ul> <p>Refer to page 1, Living off the land technique.pdf<br/>Source: <a href="https://www.crowdstrike.com/blog/going-beyond-malware-the-rise-of-living-off-the-land-attacks/">https://www.crowdstrike.com/blog/going-beyond-malware-the-rise-of-living-off-the-land-attacks/</a></p> |

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| <p>7. Update of Indicators of Compromise (IOC) and watchlist repository, whenever applicable</p>  | <p>Y</p> | <p>IOC can be uploaded through APIs.</p> <p>Industry-leading threat intelligence is built into the CrowdStrike Security Cloud to actively block malicious activity.</p> <p>Refer to Page 1 of Built-in Threat Intelligence.pdf</p> <p>As part of the CrowdStrike API, the "Custom IOC APIs" allows you to retrieve, upload, update, search, and delete custom Indicators of Compromise (IOCs) that you want CrowdStrike to identify.</p> <p>Refer to page 1, How to Import IOCs into the CrowdStrike Falcon Platform.pdf<br/>Source: <a href="https://www.crowdstrike.com/blog/tech-center/consume-ioc-and-threat-feeds/">https://www.crowdstrike.com/blog/tech-center/consume-ioc-and-threat-feeds/</a></p>   |
| <p><b>Part 2: Prevention and Detection</b></p>  |          |  |
| <p>1. The solution shall have integration with the SIEM for central monitoring and analysis, including the setup of relevant dashboards such as but not limited to, attacks, threats, endpoints at risk</p> | <p>Y</p> | <p>Using Falcon Host in conjunction with the Falcon SIEM Connector offers a fast, simple and reliable way to optimize the collection of relevant security events across hundreds of thousands endpoints. The lightweight Falcon Host Sensor will perform the otherwise hard work of collecting the data from distributed endpoints with no additional infrastructure deployment. Falcon Host Sensors will send that data from your environment into the Cloud. Then, the Falcon SIEM Connector will seamlessly pull that data from the Cloud to your SIEM.</p> <p>Refer to Page 1, falcon-SIEM-connector-datasheet.pdf</p> <p>The CrowdStrike App leverages Splunk's ability to provide rich visualizations and drill-downs to enable customers to visualize the data that the CrowdStrike OAuth2 based Technical Add-Ons provide. Details about detections, detection events, incidents, policy and group creations/modifications/deletions and Intelligence Indicator Information</p> <p>Refer to page 1, Splunkbase CrowdStrike App.pdf<br/>Source: <a href="https://splunkbase.splunk.com/app/5094">https://splunkbase.splunk.com/app/5094</a></p> |
| <p>2. The solution should utilize signature-based and/or signature-less detection techniques to protect against known and unknown attacks.</p>  | <p>Y</p> | <p>Falcon Prevent simplifies operations with signatureless protection and software-as-a-service (SaaS) delivery. It also has Machine learning and artificial intelligence to prevent known and unknown malware, and behavior-based indicators of attack (IOAs) which prevent sophisticated attacks, including ransomware and fileless and malware-free attacks.</p> <p>Refer to Page 1-2, Signatureless based attack protection.pdf</p>  |
| <p>3. The solution should have Machine Learning and Behavioral Pattern Indicator of Attack (IOA) detection capability.</p>  | <p>Y</p> | <p>Falcon Prevent protects endpoints against all types of attacks, from commodity malware to sophisticated attacks — even when offline.</p> <ul style="list-style-type: none"> <li>- Machine learning and artificial intelligence prevent known and unknown malware, adware and potentially unwanted programs (PUPs)</li> <li>- Behavior-based indicators of attack (IOAs) prevent sophisticated attacks, including ransomware and fileless and malware-free attacks</li> </ul> <p>Refer to Page 1, Machine Learning and Behavioral Pattern Indicator of Attack (IOA) detection.pdf</p>  |