Claims

1. Valuation process and process formulas:
The valuation process can integrate the businesses' exiting customer loyalty/incentive program rewards to digital currency at an acceptable value that all parties agree.

UCDC System hosting organization* (the organization) shall work with the businesses that already have existing L/I Programs to go through the valuation process. The valuation process is the process to determine the monetary value of each unit of the reward program (Program Rewards) that the businesses use. The Program Rewards includes, but is not limited to, points, mileage, frequency of consumption, and other complimentary units. Subsequently, the monetary value will become the basis to calculate the total reward program liability, and pay the organization's Reserve Fund to issue UCDC for the businesses.

Businesses often use cost basis (price subtract profit margin) to record the total outstanding Program Rewards as current liability on their books. When a business (the applicant) applies to enroll in the UCDC System, the organization shall first use the amount of the applicant's L/I Program liability divided by total outstanding Program Rewards to get the book value of the reward unit (B reward value). Then the organization shall establish a standalone market product price (the market price) for the business. The market price considers the most recent year's average price for a single product, the weighted average price for multiple products, price fluctuations in different seasons, and different locations. After the market price is calculated and agreed upon by the business, the market price approach value

of the reward unit (MP reward value) can be calculated by the market price divided by the number of reward units that can be exchanged (redeemed) for the product/service (the product).

In most cases, the average of the B reward value and MP reward value shall be the fair estimated value (FE reward value*) of the reward unit for the applicant's L/I Program. The FE reward value also will be the base price of Program Rewards that the business pays to the Reserve Fund of the organization when issuing UCDC to the businesses. After the payment, the businesses become Premium Members*. Each time UCDC is issued, the payment shall equal FE reward value multiplied by the outstanding Program Rewards.

The nominal exchange rate is equal to the nominal value ($1 in USD) divided by MP reward value. The quantity of issuance for UCDC is MP reward value multiplied by total outstanding Program Rewards and then divided by nominal value of UCDC.

The buy-back or credit-back guaranty rate (the G rate) of Program Rewards for the initial stage is equal to UCDC nominal value multiplied by the FE rewards value and divided by MP reward value. After the initial stage, the G rate shall be set by the Consumer Price Index (CPI) of the country of the organization issuing UCDC. For example, if the national CPI increased by 2% in February and the government announced the February CPI statistic report on March 10th, the organization shall use the most current G rate multiplied by 102% for the new rate. The organization shall announce the floating G rate on UCDC system website monthly. The maximum amount that the organization can buy-back and credit-back the UCDC from businesses is the businesses' total payments to the Reserve Fund.

The formulas are the followings:

110 – B reward value= L/I program Liability/ total outstanding Program Rewards

120 – MP reward value=Standalone Market Price/ the amount of reward unit that can be exchanged (redeemed) for the product

121 – Standalone Market Price for Multiple products: {Average Sales price of Product 1 X (Product 1 Sales amount/total sales amount of all products) +Average Sale price of Product 2 X (Product 2 Sales amount/total sales amount of all products)…}

122 – Standalone Market Price for Single Product: Average Sale Price per Unit

130 – FE reward Value = (B reward value X 50%+ MP reward value X 50%)

Note: If some businesses' B reward value is more or less than the cost, the above percentage may vary.

140 – Quantity of initial issuance for UCDC = MP reward value/nominal value of UCDC X Total outstanding Program Rewards

150 – Premium Members' payment = FE reward value X Total outstanding Program Rewards

160 – Exchange rate = 1: ($1 (nominal value)/ MP reward value)

170 – The initial stage G rate (buy-back or credit-back guaranty rate) = nominal value X FE reward value/MP reward value

(Copy from description page 2, paragraph 2 to page 5, first 3 lines)

2. Digital Currency Issuance Basis and Process:
The amount of digital currency issuance is 100% based on the Premium Member's Loyalty/Incentive outstanding program rewards.

The Program Rewards includes, but is not limited to, points, mileage, frequency of consumption, and other complimentary units. Subsequently, the monetary value will become the basis to calculate the total reward program liability, and pay the organization's Reserve Fund to issue UCDC for the businesses.
(Copy from description page 2, paragraph 2, lines 5-9)

The FE reward value also will be the base price of Program Rewards that the business pays to the Reserve Fund of the organization when issuing UCDC to the businesses. After the payment, the businesses become Premium Members*. Each time UCDC is issued, the payment shall equal FE reward value multiplied by the outstanding Program Rewards.
(Copy from description page 3, paragraph 2, lines 3-8)

140 – Quantity of initial issuance for UCDC = MP reward value/nominal value of UCDC X Total outstanding Program Rewards

150 – Premium Members' payment = FE reward value X Total outstanding Program Rewards
(Copy from description page 4, 2nd line from the bottom)

3. Utilize digital currency (cryptocurrency included) to form a universal customer loyalty/incentive system for businesses:
Currently, most airline companies, hotels, casinos, restaurants, retail stores, credit cards (the businesses) have their own customer loyalty/incentive programs (L/I Program). The businesses usually use POS systems that include loyalty program software to support their L/I program, but some use add-on loyalty program software. If a company has branches or chain stores and allows customers to utilize reward points, mileage, or other complimentary value units (Program Rewards) for all its branches/chain stores, we may call the program an intracompany system.

Some businesses contract with other businesses so their customers can utilize Program Rewards from the other's businesses. We may call the contractual joint L/I program an inter-companies system. For example, the airline companies Program Rewards can be redeemed for car rental companies and hotels and vice versa.

Universal Complimentary Digital Currency (UCDC) System is a system that utilizes digital currency to integrate and unify all the reward units of businesses' L/I programs under one system.

After the integration and data conversion, the businesses' loyalty program software will only use UCDC as their Program Rewards. The initial public offering (IDCO/ICO) price of UCDC will be $1 (nominal value) in the USA if the patent(s) are approved in the USA first. The UCDC System accepts all local currencies in different countries (according to the currency exchange rate on the transaction date) but the UCDC System's Reserve Fund only keeps U.S. Dollars, EURO, and Chinese Yuan.

The integration and system conversion processes include: I. Program Rewards Valuation process; II. System Integration process; and III. Issue UCDC to Customers.

I. Program Rewards Valuation process

UCDC System hosting organization (the organization) shall work with the businesses that already have existing L/I Programs to go through the valuation process. The valuation process is the process to determine the monetary value of each unit of the reward program (Program Rewards) that the businesses use. The Program Rewards includes, but is not limited to, points, mileage, frequency of consumption, and other complimentary units. Subsequently, the monetary value will become the basis to calculate the total reward program liability, and pay the organization's Reserve Fund to issue UCDC for the businesses.

Businesses often use cost basis (price subtract profit margin) to record the total outstanding Program Rewards as current liability on their books. When a business (the applicant) applies to enroll in the UCDC System, the organization shall first use the amount of the applicant's L/I Program liability divided by total outstanding Program Rewards to get the book value of the reward unit (B reward value). Then the organization shall establish a standalone market product price (the market price) for the business. The market price considers the most recent year's average price for a single product, the weighted average price for multiple products, price fluctuations in different seasons, and different locations. After the market price is calculated and agreed upon by the business, the market price approach value of the reward unit (MP reward value) can be calculated by the market price divided by the number of reward units that can be exchanged (redeemed) for the product/service (the product).

In most cases, the average of the B reward value and MP reward value shall be the fair estimated value (FE reward value) of the reward unit for the applicant's L/I Program. The FE reward value also will be the base price of Program Rewards that the business pays to the Reserve Fund of the

organization when issuing UCDC to the businesses. After the payment, the businesses become Premium Members. Each time UCDC is issued, the payment shall equal FE reward value multiplied by the outstanding Program Rewards.

The nominal exchange rate is equal to the nominal value ($1 in USD) divided by MP reward value. The quantity of issuance for UCDC is MP reward value multiplied by total outstanding Program Rewards and then divided by nominal value of UCDC.

The buy-back or credit-back guaranty rate (the G rate) of Program Rewards for the initial stage is equal to UCDC nominal value multiplied by the FE rewards value and divided by MP reward value. After the initial stage, the G rate shall be set by the Consumer Price Index (CPI) of the country of the organization issuing UCDC. For example, if the national CPI increased by 2% in February and the government announced the February CPI statistic report on March 10th, the organization shall use the most current G rate multiplied by 102% for the new rate. The organization shall announce the floating G rate on UCDC system website monthly. The maximum amount that the organization can buy-back and credit-back the UCDC from businesses is the businesses' total payments to the Reserve Fund.

Please review the details of valuation formulas from page 3.

II. System Integration Process

After businesses go through the valuation process (one-by-one) with the organization, the businesses negotiate and sign the Premium Members' Agreement with the organization. The organization then performs the system integration process as follows:

210 - System Review: This procedure is to understand the capability of the businesses' current loyalty program software. The businesses' loyalty

program software could be a built-in function as a part of the POS system or an add-on software from third parties. In most cases, the add-on loyalty program software tends to be more of a turnkey design that would be more flexible than a built-in system to produce different reports as needed. However, the system review will provide more information to decide which jobs of the system integration process can be completed by businesses' loyalty program software and the associated time and cost.

220 - Initiate Data Conversion: The data conversion is the procedure to convert customers' information associated with the program rewards they have earned on the cutoff date. The procedures include:

221- Download Customer List: First set up a report format, then download the information from the businesses software. The information of the list includes customers' name, birthday, e- mail address and the balance of Program Rewards.

222 - Conversion Table and Distribution List: The organization uses the exchange rate (see procedure 160) to produce conversion tables; then integrate the customers' list with conversion table to the distribution list.

223 - Upload data: The organization helps businesses upload the distribution list to the member management function of UCDC system. The distribution list includes customers' name, birthday, e-mail address, and the balance of UCDC.

230 - Bridge Software and Application: After the initial data conversion, the organization shall use the businesses' L/I Program software language to make a bridge software and App to make the distribution list automatically.

240 - Parameter set up and Produce Reports:

After the initial data conversion, the organization should understand the strengths and weaknesses of businesses' L/I Program software. The organization shall help businesses set up parameter for their L/I program software to produce real-time, weekly, monthly and yearly reports as needed.

III. Issue UCDC to Customers

After the organization receives payments or promissory notes, the organization shall obtain the Program Rewards distribution list provided by businesses to send notifications to the customers that UCDC were issued to their accounts. The notification includes, but is not limited to, the website address, login information, terms and conditions, and user manual to use UCDC. Once customers complete the registration, they become Consumer Members of UCDC System.

(Copy from description page 1, Paragraph 1 to Page 8, paragraph 3)

4. Reserve Fund Method:

Use a Reserve Fund to provide digital currency guaranty price and use the Reserve Fund to control the circulation of digital currency. The procedures are:

410- Once the businesses become Premium Members, the businesses shall pay the Premium Members' payment (as defined in Program Rewards Valuation process) in full or with promissory notes that pay in installments to the UCDC Reserve Fund (the fund). The payments to the Fund are not the revenue of the organization but shall be booked as a current liability to the organization. The organization will record all the transactions for each Premium Member in the UCDC system.

420- On monthly basis, if businesses received UCDC more than they issued, businesses have the option to sell UCDC through UCDC exchange platform or request the organization to buy them (buy-back transaction).

430- If businesses issued UCDC more than they received, businesses can use the amount of UCDC they received as credit (credit-back transaction) and pay the balance in legal tender.

440- When the market price of UCDC depreciates below the standard set by the organization, the fund shall use its own discretion to buy-back UCDC (treasury coin) at the exchange platforms to reduce the UCDC circulation.

450- If the market price of UCDC appreciates above standards set by the organization, the fund shall use its own discretion to sell UCDC (treasury coin) at the exchange platforms to increase the UCDC circulation.

The organization shall use the G Rate for both buy-back and credit-back transactions. The G rate shall be set by CPI of the country of the organization issuing UCDC. The organization shall announce floating G rates on UCDC system website monthly.

The maximum amount that the organization can buy-back and credit-back UCDC from each Premium Member is equal to each Premium Member's total payments to the Reserve Fund.

(Copy from description page 10, paragraph 2 to page 11, paragraph 3)

5. Double-Record Method:

UCDC System shall use both a decentralized system (public ledger) and a centralized system at the same time which means the UCDC System shall record all transactions in its centralized system. The centralized system shall not only be a back-up record for public ledger but also provide classification and statistical reports for the public.

(Copy from description page 11, paragraph 4)

6. Digital Currency Guaranty Rate Method: Provide a digital currency guaranty buy-back rate and the rate is based on Valuation process.

The buy-back or credit-back guaranty rate (the G rate) of Program Rewards for the initial stage is equal to UCDC nominal value multiplied by the FE rewards value and divided by MP reward value. After the initial stage, the G rate shall be set by the Consumer Price Index (CPI) of the country of the organization issuing UCDC. For example, if the national CPI increased by 2% in February and the government announced the February CPI statistic report on March 10th, the organization shall use the most current G rate multiplied by 102% for the new rate. The organization shall announce the floating G rate on UCDC system website monthly. The maximum amount that the organization can buy-back and credit-back the UCDC from businesses is the businesses' total payments to the Reserve Fund.

(Copy from description page 3 last paragraph to Page 4, first 4 lines)

170 – The initial stage G rate (buy-back or credit-back guaranty rate) = nominal value X FE reward value/MP reward value

(Copy from description page 5, first 2 lines)

7. Digital Currency Floating Rate Method: Change the Guaranty rate based on national CPI (Consumer Price Index) announced by the government monthly.

   After the initial stage, the G rate shall be set by the Consumer Price Index (CPI) of the country of the organization issuing UCDC. For example, if the national CPI increased by 2% in February and the government announced the February CPI statistic report on March 10th, the organization shall use the most current G rate multiplied by 102% for the new rate. The organization shall announce the floating G rate on UCDC system website monthly.

   (Copy from description page 3 last paragraph, line 3 to Page 4, first 2 lines)

8. Treasury Coin Method:
   If the market price of the digital currency depreciates below standards set by the organization, the Reserve Fund shall buy back digital currency at the exchange platforms to reduce the digital currency circulation. The inventor names all the buy-back digital currency (some are from Premium Members monthly transactions) as Treasury Coin. When the market price of the digital currency appreciates above standards set by the organization, the fund shall use its own discretion to sell Treasury Coin at the exchange platforms to increase the digital currency circulation.

   440- When the market price of UCDC depreciates below the standard set by the organization, the fund shall use its own discretion to buy-back UCDC (treasury coin*) at the exchange platforms to reduce the UCDC circulation.

   450- If the market price of UCDC appreciates above standards set by the organization, the fund shall use its own discretion to sell UCDC (treasury coin) at the exchange platforms to increase the UCDC circulation.
   (Copy from description page 10 last 5 lines to Page 11, first 2 lines)

Claims:

1. A non-transitory computer-readable medium having stored thereon software instructions that, when executed by a processor, cause the processor to generate a universal complementary digital currency for loyalty and incentive reward programs, by executing the steps of:

(i) determining a book value (B value) and a market price value (MP value) for loyalty and incentive reward programs offered by each participating business;

(ii) determining an estimated monetary value (EM value) value for outstanding loyalty and incentive reward program liability for each participating business to be deposited as payment in a universal complementary digital currency reserve fund by the participating business;

(iii) determining a value of universal complementary digital currency (UCDC value) and a quantity (Q) of universal complementary digital currency to be initially issued;

(iv) determining a payment (P) to be deposited by the participating business for the issuance of universal complementary digital currency;

(v) determining a buy-back/credit back guarantee rate (G rate) for the participating business to sell universal complementary digital currency back to the universal complementary digital currency reserve fund;

(vi) converting and integrating customer lists of each participating business into a universal distribution list using the participating business' loyalty program software;

(vii) using the participating business' loyalty program software to produce a bridge software and application and make the distribution list automatically;

(viii) evaluating and modifying the participating business' loyalty program software strengths and weaknesses to produce real-time, weekly, monthly and yearly reports as needed; and

(ix) issuing universal complementary digital currency to customers of each participating business entitled to receive loyalty and incentive rewards from the business, thereby replacing loyalty and incentive reward programs of each participating business with universal complementary digital currency.

2. The non-transitory computer-readable medium of claim 15, wherein the software instructions further causes the processor to apply formulas to determine the values for loyalty and incentive reward programs, outstanding loyalty andincentive reward program liabilities, and buy-back credit guarantee rates.

3. The non-transitory computer-readable medium of claim 16, wherein the formula to determine the B value of loyalty and incentive reward programsof a participating business is:

B= (loyalty and incentive reward program liability)/(total outstanding loyalty and incentive reward program units),

wherein the loyalty and incentive reward program liability is a monetary value owed by the participating business to loyalty and incentive reward program customers; and

wherein the total outstanding loyalty and incentive reward program units are reward units owed by the participating business to loyalty and incentive reward program customers.

4. The non-transitory computer-readable medium of claim 16, wherein the formula to determine the MP value of loyalty and incentive reward programsof a participating business is:

MP= (Reward product standalone market price)/ (the amount of reward units that can be exchanged (redeemed) for the product);

wherein the standalone market price of a single reward product is the product's most recent average sale price; and

wherein the standalone market price for multiple products is the multiple products' most recent cumulative average sale price.

5. The non-transitory computer-readable medium of claim 16, wherein the formula to determine the EM value for outstanding loyalty and incentivereward program liability for each participating business is: EM= (B x 50%) + (MP x 50%).

6. The non-transitory computer-readable medium of claim 16, wherein the formula to determine the quantity (Q) of universal complementary digital currency to be initially issued is:

Q=MP/UCDC value x total outstanding loyalty and incentive reward program units.

7. The non-transitory computer-readable medium of claim 16, wherein the formula to determine the payment (P) to be deposited by the participatingbusiness for the issuance of universal complementary digital currency is:

P=EM x (total outstanding loyalty and incentive reward program units).

8. The non-transitory computer-readable medium of claim 16, wherein the formula to determine the universal complementary digital currency's exchange rate (ER) to a national currency is: ER= 1: (UCDC value/MP).

9. The non-transitory computer-readable medium of claim 16, wherein the formula to determine the G rate for universal complementary digital currencygenerated for outstanding loyalty and incentive reward programs is: G= (UCDC value x EM)/MP.

10. The non-transitory computer-readable medium of claim 23, wherein the software instructions further cause the processor to determine a floating G

rate for the universal complementary digital currency, by performing the steps of determining a consumer price index (CPI) of each country issuing universal complementary digital currency, and setting a floating G rate based on the country's CPI.

11. The non-transitory computer-readable medium of claim 16, wherein the software instructions further cause the processor to determine whether a participating business qualifies as premium member, by executing the step of determiningwhether the participating business has deposited payment in the universal complementarydigital currency reserve fund, prior to generating a universal complementary digital currency for loyalty and incentive reward programs offered by the participating business.

12. The non-transitory computer-readable medium of claim 25, wherein the software instructions further cause the processor to provide premium members with options to buy, sell or exchange universal complimentary digital currencyby determining whether the premium members have an excess of, or lack universal complimentary digital currency, and to keep records of all transactions.

13. The non-transitory computer-readable medium of claim 25, wherein the software instructions further cause the processor to provide the reserve fundwith options to buy, sell or exchange universal complimentary digital currency by determining appreciation or depreciation of universal complimentary digital currency ona timely basis, and by establishing whether there is a need to increase or decrease circulation of universal complementary digital currency, and to keep records of all transactions.

14. The non-transitory computer-readable medium of claim 16, wherein the software instructions further cause the processor to keep record of all

transactions, by performing the steps of (a) establishing a crypto-currency public ledger; (b) establishing a centralized universal complementary digital currency system; (c) issuing universal complementary digital currency to customers of participating businesses; (d) issuing crypto-currency to customers of businesses accepting crypto- currency; (e) establishing a conversion system to convert loyalty and incentive rewardprograms into crypto-currency or universal complementary digital currency; and (f) providing transaction reports.

15. The non-transitory computer-readable medium of claim 16, wherein the loyalty and incentive reward programs comprise one or more of frequent flyer miles, cash back rewards, complimentary food and beverage, complimentary hotelstays, complimentary airline tickets, free services, free merchandise, reward points, anddiscount coupons.