



ADOA-ASET

Project Investment Justification

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Project Title:

WIC Electronic Benefit Transfer (EBT)

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I. Project Investment Justification (PIJ) Type*

Yes No Is this document being provided for a Pre-PIJ / Assessment phase?

If Yes,

Identify any cost to be incurred during the Assessment phase.	\$
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	\$

Explain:

[Click here to enter text.](#)

Yes No Will a Request for Proposal (RFP) be issued as part of the Pre-PIJ or PIJ?

II. Business Case

A. Business Problem*

The Arizona Department of Health Services (ADHS) Bureau of Nutrition and Physical Activity (BNPA) includes the Arizona Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Program. WIC is a public health nutrition program administered by the United States Department of Agriculture (USDA) Food and Nutrition Service (FNS). The Arizona WIC Program's mission is to safeguard the health of low-income women, infants, and children up to age five who are at nutrition risk, by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care.

The Arizona WIC Program contracts with 21 Local Agencies to provide services approximately 153,000 (monthly) WIC participants in over 100 clinic locations throughout the State of Arizona. These local agencies are comprised of County Health Departments, non-profit Health Centers, Food Banks, and American Indian Tribes.

In addition to local agency partnerships, the Arizona WIC Program contracts with approximately 635 grocery stores (vendors) and other food providers for food benefit distribution. These vendors provide participants with food benefits, which improve health outcomes for Arizona's children and mothers. The vehicle for delivery of nutrition benefits has been to-date the paper food instrument, which is an out-of-date form of payment that presents problems to all stakeholders including participants, vendors, Local Agencies, and State personnel.

The Arizona WIC Program seeks to improve the customer experience for food instrument (FI) issuance, redemption, settlement, and reconciliation by replacing this printed check with an Electronic Benefits Transfer (EBT) technology.

1. Background

The Arizona WIC Program serves the most vulnerable population in Arizona: low-income pregnant women, infants, and children up to age five. The Arizona WIC Program offers nutritious supplemental foods, nutrition education, breastfeeding support and healthcare referrals through a network of WIC clinics that provide in-person, participant centered services to Arizona families. Local Agency personnel use the program's Management Information System (MIS) solution, the Health and Nutrition Delivery System (HANDS) to certify participants and issue food instruments. Participants receive a folder that contains printed paper checks, or food instruments, at the clinic, which are then exchanged for supplemental foods at any of the approximately 635 vendor locations.

1.1. Participation

Local Agency personnel screen individuals applying for WIC benefits to meet eligibility requirements including residence, income, category, and nutrition risk. Applicants provide income documentation to clinic personnel, which consist of proof of income (See Table 1) or evidence of participation in an adjunctively eligible program such as the Arizona Healthcare Cost Containment System (AHCCCS), Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), and the Food Distribution Program on Indian Reservations (FDPIR). Applicants must meet categorical eligibility to participate in the Arizona WIC Program as defined in Table 2. Based on the criteria for eligibility for WIC participation, the Arizona WIC Program's primary demographic represents some of the most vulnerable populations in Arizona.

Table 1 - Arizona WIC Program 2015 Income Requirements

Family Members in Household	Weekly Household Income	Monthly Household Income	Yearly Household Income
2	\$567	\$2,456	\$29,471
3	\$715	\$3,098	\$37,167
4	\$863	\$3,739	\$44,863
5	\$1,011	\$4,380	\$52,559
6	\$1,159	\$5,022	\$60,255

Table 2 - WIC Categories

Participant Category	Requirement	Certification Length
Pregnant Woman	A pregnant woman	Until 6 weeks post-partum
Breastfeeding Woman	A woman who breastfeeds an infant at least one time per day, up to one (1) year or until she completely stops breastfeeding before the infant turns one (1) year old	Up to 1 year
Post-partum Woman	A postpartum woman, up to six (6) months after the end of the pregnancy.	6 months
Infant	An infant until their 1st birthday	Up to 1 year
Child	A child, between the ages of one (1) year and five (5) years old.	1 Year

1.2. Food Benefit Issuance

The Arizona WIC Program issues food packages appropriate for each participant category and the specific needs of the individual. The food packages are a prescription of foods with specific types and quantities of foods. There are over 1200 available food packages to meet the participants' dietary needs and personal preferences. Local Agency personnel work with the participant to identify the specific food package that meets the participant's needs. An example of a child food package includes the following foods:

- 3.5 Gallons of Milk
- 1 Quart of Yogurt
- 1 Pound of Cheese
- 1 Dozen of Eggs
- 32 Ounces of Whole Wheat Bread
- 36 Ounces of Dry Cereal
- 2 Bottles of Juice (64 Ounce)
- 1 Jar of Peanut Butter (16 to 18 Ounce)
- \$8 Fruits and Vegetables Voucher

1.3. Food Instrument

The Arizona WIC Program issues food benefits on paper food instruments. A Food instrument is a form of payment, similar to a check, which participants exchange for WIC foods. Local Agency personnel print food instruments from Magnetic Ink Character Recognition (MICR) printers that encode bank account, routing number, and serial number information for bank processing.

Local Agency personnel print on average five food instruments per monthly food package, and may issue the participant up to three months of food instruments. Personnel will then generally present participants with a folder consisting of three months of food instruments, which can become cumbersome for larger families with multiple active participants.

The printed food instrument includes the following information as referenced from the vendor manual in Figure 1:

Figure 1 - Sample Food Instrument

The form is a rectangular document with a header section and a main body. The header section contains the following text: 'DEPARTMENT OF HEALTH SERVICES WIC PROGRAM', 'MISUSE OF DRAFT', 'PAY TO STATE OR FEDERAL PROSECUTOR', and 'VOID IF ALTERED'. Below this, there are fields for 'PARTICIPANT ID', 'PARTICIPANT NAME', and 'DRAFT TYPE'. The main body of the form is mostly blank, with a large area for a signature. On the right side, there are several sections: 'VENDOR MUST DEPOSIT WITHIN 60 CALENDAR DAYS FROM FIRST DATE TO', 'ACTUAL \$ AMOUNT', 'DATE OF USE', 'FIRST DATE TO USE', 'DATE OF USE', 'PAY TO THE ORDER OF', and 'PARTICIPANT DO NOT SIGN UNTIL TIME OF PURCHASE'. At the bottom right, there is a 'SIGNATURE AT STORE' field. The form is annotated with 18 numbered circles: 1 points to the header, 2 to the 'VOID IF ALTERED' text, 3 to the 'DRAFT #' field, 4 to the 'PARTICIPANT ID' field, 5 to the 'PARTICIPANT NAME' field, 6 to the 'DRAFT TYPE' field, 7 to the 'ACTUAL \$ AMOUNT' field, 8 to the 'DATE OF USE' field, 9 to the 'FIRST DATE TO USE' field, 10 to the 'DATE OF USE' field, 11 to the 'PAY TO THE ORDER OF' field, 12 to the 'PARTICIPANT DO NOT SIGN UNTIL TIME OF PURCHASE' text, 13 to the 'SIGNATURE AT STORE' field, 14 to the '\$' symbol, 15 to the 'ACTUAL \$ AMOUNT' field, 16 to the 'DATE OF USE' field, 17 to the 'PAY TO THE ORDER OF' field, and 18 to the 'SIGNATURE AT STORE' field.

1. Information box – Address and phone number for the State Agency.
2. Required statement.
3. Draft #. Food instrument serial number.
4. Information box for banking contractor.
5. Identifies the Local WIC Agency and clinic that issued the food instrument.
6. Participant's identification number.
7. Participant Name
8. Draft Type: Code to describe the food items listed on the food instrument.
9. Vendor deposit within 60 calendar days from First Date to Use (FDTU). The first date to use is the computer printed date in box #10 above and described below.
10. FDTU: The food instrument is not valid before the FDTU. Due to clinic schedules, WIC participants may receive food instruments before the FDTU.
11. Date of Use: Cashier will write today's date in this box.
12. Last Date to Use (LDTU): The last day (until midnight) that the food instrument may be accepted.
13. The prescribed food items and quantities to be purchased.
14. The dollar amount of the food instrument must equal only the items listed and purchased.
15. \$ Correction Only: To be filled in by the cashier when a mistake is made in the \$ box and a new total is needed.
16. Cashier Initial: Cashier, upon completion of the "\$ correction only" box, will place his or her initials in this box to verify the change.
17. The Vendor will apply their unique Arizona WIC Program vendor ID stamp.
18. Signature at Store: The signature of the participant. The signature must occur at the store in front of the cashier at the end of the transaction.

1.4. Food List

A committee consisting of personnel from the three WIC Programs in Arizona (ADHS, Inter Tribal Council of Arizona, and Navajo Nation), Local Agency representatives, and WIC vendors determines which foods are included in the Arizona WIC Program Food List. The Food List specifies the brands, types, and sizes of food items that participants are able to purchase from vendors. The selection criteria for adding foods to the food list include:

- Nutritional criteria that meets USDA FNS requirements;
- Cost of each food item will be similar to like food types, and will not exceed 130% of the cost of like foods;
- The food will be readily available in the marketplace; and
- The food, with the exception of formula, will have been available for at least one year on store shelves.

1.5. Food Benefit Redemption

WIC participants exchange food instruments for WIC foods at any authorized vendor location. The WIC purchase is one of the most complicated retail transactions for cashiers and WIC participants. The participant must use the Food List as a reference while shopping for WIC foods, and separate WIC foods from non-WIC foods at checkout. The participant must further organize the WIC foods by the food instrument contents. Vendors must complete a thorough process before, during, and after the WIC transaction as referenced in the vendor manual. The cashier is directly responsible for the participant experience during checkout.

Prior to the WIC transaction, the cashier must identify the WIC participant. Then, the cashier must validate that the transaction date is not before the FDTU and after the LDTU. Next, the cashier must make sure that the food instrument has not been reported in writing as lost or stolen. Then, the cashier must verify that the foods are WIC eligible and the sizes and quantities match the food instrument. Finally, the cashier must record the transaction date onto the food instrument's "Date of Use" box. The cashier is now ready to commence the WIC transaction.

During the WIC transaction, the cashier must allow the use of coupons, the purchase of sale items, and promotional specials including amount off coupons, free additional ounces, Buy One Get One (BOGO) specials, in-store or manufacturer promotions, and any store membership discount cards that the participant may possess. Once the cashier has accounted for all other point of sale adjustments, the cashier enters the transaction amount into the food instrument's "\$" box, corrects any mistakes in writing the dollar amount and present the food instrument to the participant for signature. The cashier will then witness the customer signature and match the signature against the WIC folder or Arizona state identification. Finally, the cashier will give the participant a clear, legible cash register receipt for all of their WIC purchases.

The process is exceptionally complicated and presents multiple points of potential failure in a manual and labor intensive process, as each checkpoint for validation requires direct human intervention. Extensive training is required for both Local Agency personnel and vendors to ensure a successful participant experience. Local Agency personnel must also train the participant on shopping for WIC foods including: how to use the Food List to shop for WIC foods, checkout procedures for separating WIC foods from non-WIC foods, and how to fill out the food instrument for payment.

1.6. Settlement

The WIC vendor submits the food instrument to their bank for processing. The bank routes the food instrument through the Federal Reserve System to the Arizona WIC Program Banking Contractor. The Arizona WIC Program Banking Contractor reviews food instruments according to standardized criteria including validation of: food instrument serial number, date of redemption, vendor number, date of use, signature, and that the purchase amount is below the Not to Exceed (NTE) value for the food instrument.¹

The Arizona WIC Program Banking Contractor processes food instruments that meet all criteria for payment and rejects food instruments that do not meet all criteria. The type of rejection reason dictates whether the food instruments will be paid up to the NTE amount or returned to the vendor for correction. Vendors receive payment for food instruments that meet all criteria on the following business day. The Arizona WIC Program Banking Contractor automatically transfers funds to vendors for all approved food instruments each business day and maintains the bank account for WIC vendor payments. Consequently, the Arizona WIC Program maintains funds in the Arizona WIC Program Banking Contractor's bank account through fund transfers from the State Treasurer's office.

¹ The NTE price is a FNS approved cost containment methodology whereby WIC Vendors are subject to price limitations.

1.7. Reconciliation

The Arizona WIC Program reconciles food benefits to account for all participant issued benefits, redeemed benefits, voided food benefits, and unused food benefits. Food instrument reconciliation matches food instruments issued in HANDS with food instruments cashed from the Arizona WIC Program Banking Contractor and unspent or voided food instruments.

2. Challenges

The food instrument issuance, payment, and settlement process presents challenges to all stakeholders including participants, vendors, Local Agency personnel, and Arizona WIC Program personnel. Participants struggle with food instrument replacement and with the WIC shopping experience. Vendors encounter complicated food instrument procedures and monetary penalties. Local Agencies face challenges with aging MICR printers that require additional maintenance and repair. The Arizona WIC Program personnel receive limited data from food instrument transactions, which inhibit optimization of WIC food cost containment and fraud detection and prevention.

2.1. Challenges to Participants

Food instruments limit the participant experience at the clinic and at the vendor. Participants face strict limitations for replacing food instruments, whether the food instruments were damaged or the participant requires an infant formula change. The Arizona WIC Program is unable to replace lost or stolen food instruments. Additionally, the participant shopping experience comes with added complexity that leads to long transaction times and a negative perception from other shoppers.

2.1.1. Replacing Food Instruments

Local Agency personnel train participants that food instruments should be treated like cash, as lost or stolen food instruments cannot be replaced. Participants have no recourse for lost or stolen food instruments, and are only able to receive future non-issued food instruments.

The Arizona WIC Program is able to replace food instruments for damaged food instruments and food package changes. The participant must either set an appointment or walk into a clinic to replace the food instruments. The participant must bring the existing food instruments to exchange with new food instruments. Returning to a WIC clinic can be challenging to participants with limited transportation. In addition, participants are not able to redeem damaged food instruments for WIC foods, and must replace the damaged food instrument before shopping.

2.1.2. Food Instrument Redemption Limitations

The Arizona WIC program provides participants with food instruments that contain a prescription of foods with specific quantities, and are restrictive by nature. Participants must purchase all foods on the food instrument; otherwise, the participant must forego the benefit. The participant must decide whether to purchase the quantity available or go to a different WIC vendor. Participants must choose between convenience and maximizing food instrument benefits. Additionally, participants may inherently prefer not to purchase all foods on the food instrument. For example, if a participant utilizes public transportation or walks to their nearest vendor, they may be unable to carry all the purchased foods. This barrier creates an undue burden on those who are generally most in need.

2.1.3. WIC Transaction Times

The WIC food instrument transaction is very complicated and time consuming. The WIC transaction requires participants to search for WIC foods throughout the store and separate WIC foods from non-WIC foods at checkout. These foods may be interspersed with non-WIC foods throughout the store, and require additional effort to find and keep segregated from other purchases. Participants are required to complete separate transactions for each individual food instrument. On average, participants have five food instruments to redeem for an individual, and families with multiple participants require an even larger quantity of transactions. While each food instrument transaction may not be time consuming on its own, the compounding of so many transactions and repeated steps leads to frustrating and inefficient checkout times.

2.1.4. Stigma

The WIC transaction creates a societal stigma that discourages participation and the use of food instruments to purchase much needed supplemental foods at checkout. Participants are easily identifiable throughout their shopping experience as they carry a blue WIC ID folder that holds the Food List and food instruments. Other shoppers see participants at checkout and associate them personally with the long checkout times, thus creating aversion at checkout.

2.2. Challenges for Local Agency Personnel

Local Agencies print participant food instruments from MICR printers, which require stringent specifications to ensure that food instrument data prints properly and banks and vendors can accept the food instruments. MICR printers require regular maintenance and repairs to ensure that participants receive food instruments and vendors and banks can process the food instrument.

2.2.1. MICR Printers Maintenance and Repair

Local Agency personnel use the Arizona WIC Program's primary Management Information System (MIS) solution, the Health and Nutrition Delivery System (HANDS), to print Food instruments from MICR printers. MICR printers require regular alignment to ensure that the information encoded on food instruments is readable by WIC vendor cash register systems or the banking contractor may be unable to process the food instrument.

MICR printers require maintenance as parts wear or break down requiring local Agency personnel to contact support to have a technician repair the malfunctioning printer. While the MICR printers is out of service awaiting technician repairs, clinic services experience impacted service times due to delays in printing. Additionally, smaller WIC clinics may have only one MICR printer, and if that equipment fails, personnel are unable to serve participants altogether until repairs are completed. Moreover, printer jams or errors require clinic personnel to void the printed food instrument and print a replacement as each food instrument contains a unique serial number. All of these service failures require time to resolve, which directly affects clinic flow and the participant experience.

2.3. Barriers to WIC Vendors

Vendors struggle with the complicated food instrument transaction as well as the settlement process. As discussed above, the process for redeeming food benefits at checkout requires vendors to follow detailed steps before, during, and after the transaction. Additionally, if the cashier makes a mistake while filling out the food instrument, the Arizona WIC Program will return the food instrument, and the vendor is liable to pay a returned check fee.

2.3.1. Cashier vs. Participant Interaction

The Arizona WIC Program requires vendors to verify that participants purchase only foods as indicated in the Food List. During the WIC transaction, cashiers use the Food List to determine if a food is or is not WIC approved. Disagreements can often occur between the cashier and participants regarding interpretation and content of the food list and whether a food is considered WIC approved. Therefore the participant experience will vary greatly between vendor to vendor, and even cashier to cashier based on training and familiarity with the Food List.

2.3.2. Complicated WIC Transaction

Vendors have indicated that the WIC food instrument transaction is the most complicated with processes before, during, and after the transaction. Vendors spend much more time conducting a WIC transaction than any other type of transaction, including Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), and Debit/Credit. The WIC food instrument is the only type of tender, which specifies a brand or types of foods. Vendors have a long list of steps to follow before, during, and after the WIC transaction. Additionally, cashiers must process WIC transactions separately for each food instrument, meaning a single customer may require multiple transactions. Ultimately, the complexity of WIC transactions contributes precipitously to longer lines and wait times at checkout for WIC participants and other shoppers alike.

2.3.3. Returned Check Fees

Vendors face a financial burden for returned checks. Returned checks occur from cashier errors (See Business Problem Section 1.6 – Settlement) or from the food instrument amount exceeding the maximum value. The return check fee will vary based on the WIC vendor's contract with their bank, from a few dollars to \$25. These fees often far exceed the value of the food instrument that the vendor has submitted for redemption, further representing an undue burden and barrier to WIC vendors.

2.4. State Level

The Arizona WIC Program receives limited food instrument redemption data which includes processing date, transaction time, and actual foods purchased. Although the Arizona WIC Program does not have access to reports with the date of use, the program has access to the information. During investigations, the Program Integrity Team will manually review FIs to look for the "date of use," assuming the vendor reflected the actual date of use. The limited redemption data hinders the Arizona WIC Program's ability to support daily operations such as cost containment and fraud detection and prevention.

2.4.1. Data Limitations

The USDA FNS requires the Arizona WIC Program to maintain a vendor cost containment system that includes a peer group, competitive price criteria, and allowable reimbursement levels that demonstrate compliance with cost containment provisions. The purpose of cost containment is to maximize the number of eligible women, infants, and children served with available federal funding.

To address this, the Arizona WIC Program has established peer groups by type of store, sales dollar volume, and percent of WIC sales dollars against total sales dollars as listed below:

- Pharmacy
- National/Regional or Local Chain
- Super Centers
- Large Urban Independent – more than \$750,000 total gross annual sales
- Small Urban Independent – less than \$750,000 total gross annual sales
- Large Rural Independent – more than \$750,000 total gross annual sales
- Small Rural Independent – less than \$750,000 total gross annual sales
- Above 50% Vendor (A-50) – WIC sales account for more than 50% of total food sales
- Military Commissary

The Arizona WIC Program conducts cost containment by regularly updating the NTE amount for each FI type within each peer group, thus allowing for different food costs within different types of vendors. Food instruments that are redeemed over the NTE amount are paid up to the NTE amount.

With paper food instruments, significant information core to understanding the WIC transaction and purchases is not captured during checkout. The Arizona WIC Program does not know the brand of foods purchased or the quantity of foods purchased during any given WIC transaction, meaning cost containment for instruments must be managed with a broad range of foods rather than specific brand, type, and size. This broader range of variation provides vendors a wider range of acceptable prices, which can translate to overall incrementally higher food costs.

The Arizona WIC Program also relies on this same data to support fraud detection and prevention. Transaction data from paper food instruments is limited to processing date and amount, and the program does not receive data on purchased foods or actual transaction date. The Program Integrity Team is unable to monitor if participants are truly receiving WIC approved foods and if food instruments are redeemed outside of the FDTU and LDTU, as this data is not collected, or is captured manually and cannot be validated.

3. Federal Mandate

In December 2010, President Obama signed into law the Healthy Hunger Free Kids Act of 2010, which mandates that all WIC State Agencies implement WIC EBT no later than October 2020. The federal mandate requires the Arizona WIC Program to transition from food instruments to a WIC EBT card for WIC foods purchases at any vendor with the intent of improving access and food benefit security for participants. These changes improve program integrity and allow the program to extend benefits to more Arizonans by reducing fraud and having a means to strengthen cost containment.

The mandate provides guidance for how WIC State Agencies must implement WIC EBT and defines available federal funding sources. The mandate requires that all WIC State Agencies, Contractors, and vendors must implement WIC EBT systems using the FNS defined Operating Rules, WIC Universal

MIS/EBT Interface, and Technical Implementation Guidelines established by FNS. While the Arizona WIC Program made modifications during the development of the WIC HANDS MIS solution to support EBT implementation, the system requires additional modifications to support the WIC Universal MIS/EBT Interface.

In recent years, USDA FNS has set aside funds to support Management Information System (MIS) and WIC EBT projects. The federal mandate defines WIC Program's financial responsibilities to support vendors as they update their cash register systems to process WIC EBT transactions. The Arizona WIC Program is required to provide any equipment or system that processes only WIC EBT transaction or financial support for systems that will process additional transactions outside of WIC EBT. The Arizona WIC Program must request federal funds to modify the existing WIC HANDS MIS solution, implement a WIC EBT system, and enhance vendor cash register systems to process WIC EBT transactions.

B. *Proposed Business Solution**

The Arizona WIC Program will replace paper food instruments with WIC EBT. EBT will enable the automated delivery of government benefits or services through computers, cards, and innovative technology.

The Arizona WIC Program analyzed the existing WIC EBT technology options and compared the stakeholder benefits and opportunities associated with each technology option. The Arizona WIC Program utilized an evaluation tool that analyzed the impacts of each technology option to participants, vendors, Local Agency personnel, and State personnel. Following the technology decision, the Arizona WIC Program will procure a WIC EBT Contractor to implement and operate a WIC EBT system. WIC EBT will improve how participant receive and redeem food benefits and vendors receive payments for WIC transactions. Additionally, the Arizona WIC Program will procure a Quality Assurance (QA) Services Contractor to independently review the work products, and provide on-site support through statewide rollout.

The Arizona WIC Program will modify and test all systems required for food benefit issuance, redemption, settlement, and reconciliation. First, the Arizona WIC Program will modify HANDS to support WIC EBT card issuance, which includes backend database changes, food package changes, and implementation of a Universal Product Code (UPC) Database. Next, the Arizona WIC Program will support vendors as they modify their cash register systems to accept WIC EBT transaction. Finally, the Arizona WIC Program will integrate HANDS and vendor cash register systems with the WIC EBT system to ensure data integrity between all systems.

Working in conjunction with system changes, Arizona WIC Program staff will complete tasks to support WIC EBT. First, program will revise Local Agency and vendor policies and procedures to adjust language regarding food instruments to reflect WIC EBT. Next, Arizona WIC Program personnel will build the UPC Database of all WIC approved by gathering food data from vendors and manufacturers. Then Arizona WIC Program personnel will create a training plan to ensure that all stakeholders receive training and materials that meets their needs.

Following all system changes and program activities, the Arizona WIC Program will pilot WIC EBT at the Casa Grande WIC clinic and surrounding vendors. Prior to pilot, the Arizona WIC Program will ensure that the pilot clinic and vendors have equipment, materials, and training to support WIC EBT. During

pilot, the Arizona WIC Program will provide on-site clinic and vendor support to ensure that any questions or issues are quickly resolved. Throughout and following pilot, the Arizona WIC Program will monitor metrics to track performance and customer service levels.

Following a successful pilot, the Arizona WIC Program will rollout WIC EBT to the remaining WIC clinics and vendors using a phased approach. Prior to statewide rollout, the Arizona WIC Program will train all Local Agency personnel and ensure that clinics have equipment and materials on-hand. Simultaneously, the Arizona WIC Program will verify that vendor cash register systems can process WIC EBT transactions. Finally, the Arizona WIC Program will coordinate on-site clinic and vendor support during rollout to ensure prompt customer service.

1. WIC EBT Technology Options

There are two available WIC EBT technologies, each with fundamental differences, online and offline. Online WIC EBT employs a magnetic stripe card and Personal Identification Number² (PIN) to enable participants with access to food benefits at any vendor. The participant's benefits are stored in their Electronic Benefit Account (EBA) on the WIC EBT system and the vendor cash register system uses an internet connection to access the participant's benefits through the credit/debit network. With offline WIC EBT, the participant's food benefits are stored using a smart card (imbedded computer chip card) and PIN. The WIC EBT system encodes these benefits directly to the card, and consequently no communication is required between the Point of Sale (POS) terminal and the WIC EBT system during the transaction.

With both of these technologies, the cashier scans the WIC foods and the participant swipes the WIC EBT card, validating their authorization to use the card by entering their PIN at the vendor's Point of Sale³ (POS). The POS system validates foods against the approved product list (APL) automatically, and the WIC EBT system deducts benefits from the participant's benefits account.

These technologies vary in their implementation as each offers a unique benefit to the Program, vendors, and WIC participant. With online EBT, benefits are stored on the WIC EBT system, so lost or stolen cards are replaceable at any time with minimal impact to the participant. Additionally, the participant does not need to be present in the clinic to load benefits to the card in the event of emergency need, or situations where the card is not present.

Offline technology allows the participant to access food benefits at any vendor regardless of connectivity. Since benefits are stored directly on the card, the transaction does not require an internet connection to the WIC EBT system; however, the participant must wait two-business day to replace lost or stolen cards. The waiting period is to allow the WIC EBT system to validate the participant's current benefit balance.

² The Personal Identification Number (PIN) is a participant selected four-digit number that is used to authorize WIC EBT transactions.

³ The Point of Sale (POS) is the Vendor location of the WIC EBT transaction.

2. Technology Decision

USDA FNS requires WIC Programs to submit a Feasibility Study and an Implementation Advance Planning Document (IAPD) to USDA FNS to request funding to support WIC EBT implementation. The Feasibility Study provided data needed to make an informed decision about the best technology solution for Arizonans in implementing WIC EBT. The Feasibility findings included cost analysis of paper food instruments compared against online and offline technology, an assessment of the feasibility of WIC EBT, a recommendation for an electronic card option, and a two to five year plan for WIC EBT.

The study results indicated that both online and offline WIC EBT technologies are feasible in both implementation and affordability. However, it was not feasible for the Arizona WIC Program to implement and operate a WIC EBT System in house, due to insufficient staffing and expertise. Additionally, the Arizona WIC Program did not want to accept the financial liability risk associated with WIC EBT transaction processing. The Arizona WIC Program utilized an evaluation tool detailed in Table 3 to consider the impact of online and offline EBT to participants, Local Agency/clinic personnel, vendors, and State personnel and determined that online WIC EBT was the best option for all stakeholders.

Table 3 - WIC EBT Technology Evaluation Tool

Criteria	Offline	Online	Impact to Stakeholders			
			State	Clinic	Participant	Vendor
Card Security	The Card Number and PIN are securely stored in the chip on the card in encrypted form and is unreadable with a skimming device, making this option more secure.	The EBT card number can be skimmed using magnetic stripe skimming device.	X		X	
Participant access to real time card balance in HANDS, WIC EBT system, or Customer Service.	The participant is unable to obtain a real time balance as reconciliation between the store and EBT Host system does not occur immediately.	The participant could obtain a real time benefit balance at any WIC clinic, vendor, online portal, or by contacting customer service.	X	X	X	
Lost or Stolen Card Replacement	Participants must wait 2-5 days to receive a replacement EBT card, so transactions can be reconciled with the WIC EBT system.	Participants can receive a replacement card immediately by visiting a WIC clinic.	X	X	X	
Participant remote food benefit change	Participant must visit a clinic to receive or change food benefits.	Participants can receive or change food benefits without being present at a clinic.		X	X	
Ability to conduct a transaction with a damaged EBT card	The participant is unable to complete a WIC EBT transaction with a damaged smart card, as food benefits are stored on the chip of EBT card. The participant must return to the clinic for a replacement card.	The participant is able to complete a WIC EBT transaction, as the cashier is able to manually enter the EBT card number.			X	X
Ability to Conduct a WIC EBT Transaction if a Communication Network is down	The participant is able to conduct WIC EBT Transactions if the vendor's communication network is unavailable.	The participant is not able to conduct a WIC EBT transaction as a functional communication network and a WIC EBT system is required.			X	X

Transaction Processing Fees	Vendors do not have to pay transaction fees as offline transactions occur between the cash register system and the EBT card.	Vendors that use a third party processor are subject to fees for each transaction. Fees vary based on the vendor's contract with the third party processor.				X
Vendor Settlement Times	Vendor payment occurs within 3-5 business days, as reimbursement is dependent on the vendor transferring a payment file to the WIC EBT system.	Vendor payment occurs the next business day for transactions made prior to the end of day.	X			X
Vendor risk of accepting an EBT transaction from a stolen card.	The WIC EBT system maintains a hot card list that contains lost or stolen cards. The vendor must download this file daily. If a vendor does not download the hot card list, it is possible that the vendor will accept a lost or stolen card and thus lose revenue from a bad transaction.	The WIC EBT system maintains a hot card list that contains lost or stolen cards. The POS will reference the hot card list in real time every time the Participant presents an EBT card.	X		X	X
Issuing food benefits in a disaster scenario	A participant must visit a clinic or emergency location and have benefits loaded to the card.	A participant is able to receive food benefits remotely without visiting a WIC clinic.	X	X	X	
Redeeming food benefits in a disaster scenario	Vendors are able to process transactions if the telecommunications network is down. Vendors require a telecommunications connection for settlement.	Vendors are not able to complete a transaction if the telecommunications network is down.	X		X	X

3. Approach

3.1. Online EBT Implementation and Processing Services Request for Proposal (RFP)

ADHS Procurement released the Online EBT Implementation and Processing Services Request for Proposal (RFP) for bid on May 1, 2015. The Online EBT Implementation and Processing Services RFP includes hosting an online WIC EBT system, implementation activities, and online WIC EBT transaction processing, settlement, and reconciliation services. The Online EBT Implementation and Processing Services RFP requirements include:

- Implement a WIC EBT System that meets the USDA FNS WIC Universal MIS/EBT Interface specifications and USDA FNS WIC EBT Operating Rules
- Create and test the interface between HANDS and the WIC EBT System
- Support vendors as they update their cash register systems to process WIC EBT transactions according to USDA FNS Technical Implementation Guide.
- Provide WIC EBT transaction processing services
- Provide vendor settlement services
- Reconcile food benefits between HANDS and the WIC EBT system
- Provide WIC clinic and vendor hardware required to support WIC EBT
- Provide participant and vendor customer service support
- Provide reports to support daily operations including:
 - Financial Management
 - Retail Management
 - Food Management
 - Processing Metrics
- Provide State, clinic, vendor and participant training materials

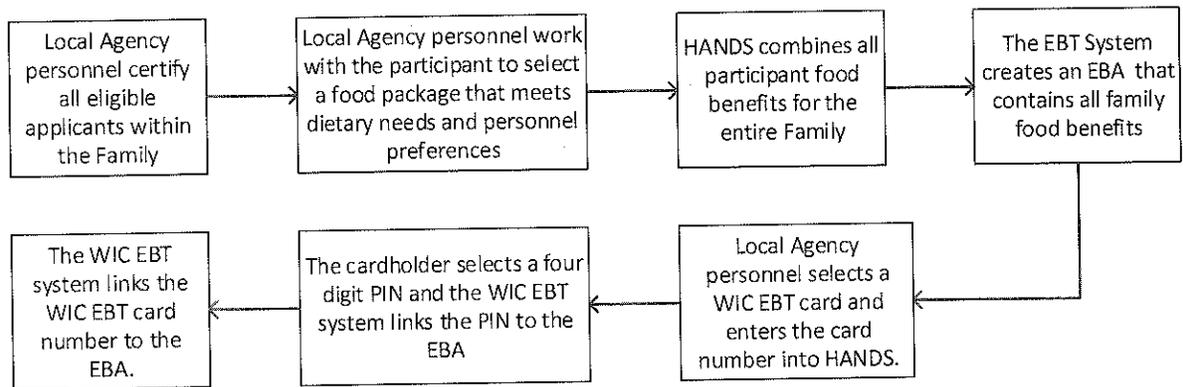
The Online EBT Implementation and Processing Services RFP closed on August 25, 2015. The Arizona WIC Program will contract with a WIC EBT Contractor to host an online WIC EBT system, and provide implementation services and transaction processing pending ITAC and USDA FNS approval.

3.2. Benefit Issuance with WIC EBT

The Arizona WIC Program will replace paper food instruments with online WIC EBT employing a magnetic stripe card issued to participants for use at any authorized WIC vendor to secure WIC foods. Implementation of WIC EBT and magnetic strip cards will alter the certification flow in clinics, and require different steps for issuing food benefits as indicated in Figure 2. Local Agency personnel will use HANDS to certify and issue food packages to each participant in the family. Local Agency personnel select prebuilt food packages that vary based on the participant category and/or age, and work with the participant to tailor the package to meet the participant's dietary needs and preferences based on defined rules for appropriate substitutions. Under WIC EBT, HANDS will aggregate food benefits at the family level and create one EBA within the WIC EBT system for each household.

Local Agency personnel select a WIC EBT card and enter the card number in HANDS, linking the WIC EBT card to the participant's EBA. The participant selects a private four digit PIN for use in authorizing transactions at the vendor POS.

Figure 2 - WIC EBT Benefit Issuance Clinic Flow



HANDS issues WIC EBT food benefits on a rolling month, indicating that each month of food benefits starts on the same day each month, with the previous month benefits ending the day prior at 11:59pm local time. The family's certification date determines the food benefits start date. Participants are able to receive up to three months of food benefits, although the participant is only able to access current month food benefits.

3.3. Benefit Redemption with WIC EBT

The Arizona WIC Program will provide participants with a WIC EBT card for use at any vendor POS to purchase WIC foods. The Arizona WIC Program will support vendors in updating their POS systems to process WIC EBT transactions. The WIC EBT transaction is much less complex than the food instrument transaction and provides participants with services that did not exist with food instrument transactions.

3.4. Vendor Cash Register System

Vendors will update their cash register systems to process WIC EBT transactions. The WIC EBT Contractor and the Arizona WIC Program will support vendors to update their cash register systems to process WIC EBT transactions. Currently, vendors have two types of cash register systems, integrated and non-integrated. An integrated cash register system has a computer, software, monitor, barcode scanner, scale, and PIN pad. A non-integrated cash register is a basic cash register with a cash drawer. Vendors with an integrated cash register system are considered integrated vendors.

Integrated cash register systems have additional functionality when processing WIC EBT transactions that does not exist with food instrument. Integrated cash register systems support mixed basket transactions and split tender. Mixed basket transactions combine WIC foods and non-WIC foods into a single transaction. Split tender allows the participant to pay for a transaction with multiple payment tenders. Integrated vendors will update their existing cash register system and test the process for WIC EBT transactions to ensure preparedness for implementation.

Non-integrated vendors have a cash register system that cannot be enhanced to process online WIC EBT transactions, therefore must rely on the Arizona WIC Program to provide a stand-beside solution

capable of processing only online WIC EBT transactions. The Arizona WIC Program will provide non-integrated vendors with a stand-beside solution that includes the following components at no cost:

- Computer terminal
- Barcode scanner
- External PIN pad

The WIC EBT Contractor will install the stand-beside solution and train vendor personnel.

3.5. WIC EBT Transaction

WIC EBT combines participant food benefits into a single, family account. The Arizona WIC Program issues a WIC EBT card that the participant uses at any vendor to access the family food benefits. The WIC EBT transaction takes place at the vendor POS.

The participant goes to the vendor POS when finished shopping for WIC foods. The participant slides their WIC EBT card and enters their PIN at the Cash Register System. The Cash Register System uses the Internet to connect to the debit/credit network to connect to the participant's EBT account. Vendors direct connect or use a Third Party Processor (TPP) to access the WIC EBT system. TPPs provide services such as transaction routing and settlement dispute support on behalf of the vendor and charge fees per transaction that vary based on the vendor's individual contract. Vendors with a stand-beside solution have a direct connection to the WIC EBT system. As the cashier scans each WIC food, the cash register system will verify the following:

- WIC food is on the APL,
- There are sufficient benefits on the account for purchase, and
- Verifies each food against the NTE price.

The cashier will prompt the participant to enter their PIN to approve the transaction. After the transaction is completed, a receipt prints that details the previous balance, benefits spent during the transaction, remaining balance, and benefit expiration date.

3.6. Settlement with WIC EBT

Settlement is the vendor payment process for WIC transactions. WIC EBT provides vendors with a higher level of customer service. The Arizona WIC Program will utilize an industry standard, automated settlement process. Vendors no longer need to visit a bank to deposit food instruments.

The Arizona WIC Program will designate a time for End of Processing Day, such as 3:00PM. The WIC EBT Contractor will pay vendors for all transactions approved before the End of Processing Day, on the following business day. The WIC EBT Contractor will have a bank account for vendor WIC EBT payments. The Arizona WIC Program will maintain funds in the bank account by having the State Treasurer's Office transfer funds to the bank account. The vendor will receive a single direct deposit payment of all transactions from the previous business day. For each WIC EBT transaction, the WIC EBT system determines the payment amount for each individual food, the purchase price or the NTE price, whichever is less.

WIC EBT settlement will provide vendors with faster, more reliable payments. Vendors will know the transaction payment amount immediately after the transaction approval and will receive payment for the transaction on the next business day.

The Arizona WIC Program will receive more accurate and timely settlement data with WIC EBT than food instruments, specifically, reports of transactions completed on the previous business day. Transaction data will include transaction time, transaction amount, individual foods and pricing. The Arizona WIC Program will be able to utilize reports to monitor and manage annual and quarterly food budgets, trends, cost containment and fraud. These benefits signify substantial improvement under WIC EBT, as food instrument transactions do not capture the transaction date or foods purchased.

3.7. Reconciliation with WIC EBT

With WIC EBT, the Arizona WIC Program will reconcile food benefits by matching food benefits issued and redeemed in HANDS and the WIC EBT system. The Arizona WIC Program will be able to reconcile food benefits immediately after participant current month food benefits have expired, as participants are not able to access food benefits outside of the FDTU and LDTU.

C. *Quantified Benefits**

<input checked="" type="checkbox"/>	Service enhancement
<input type="checkbox"/>	Increased revenue
<input checked="" type="checkbox"/>	Cost reduction
<input checked="" type="checkbox"/>	Problem avoidance
<input checked="" type="checkbox"/>	Risk avoidance

1. Service Enhancements

1.1. Transaction Time Reduction

Participants will benefit from customer service experience improvements with WIC EBT. WIC EBT transactions will be simpler and more flexible than food instrument transactions due to automation of processes and consolidation of food benefits.

Vendors will require less training as WIC EBT transactions are far less complicated than paper food instrument transactions. The participant will swipe their WIC EBT card at the POS and then enter their PIN. Cashiers will no longer need to verify the participant's WIC Program identification or verify the FDTU and LDTU as the cash register system restricts access to only the current month's food benefits, and does not allow access to expired previous month or future month food benefits. During the transaction, cashiers will not need to determine if foods are WIC approved. The cash register system will access the APL, and recognize whether a food is WIC approved or not. The participant will no longer present proof of identification, such as the WIC Folder or Driver's License to conduct a WIC EBT transaction, as the participant's PIN serves as an identification methodology.

Each month, participants receive on average five paper food instruments, though the quantity of food instruments varies based on the participant's food package. For households with multiple active participants within the family, even more food instrument transactions are required per shopping trip. WIC EBT will simplify the transaction process by consolidating all household benefits to one WIC EBT card and grant the participant access to all active benefits for the household on the combined EBA. Participants and vendors will no longer need to organize WIC purchases by food instruments. Instead, participants will combine all of their WIC food purchases into a single transaction and swipe their card once. This approach will greatly reduce the number of transactions as the participant can perform a

single transaction that includes any quantity of WIC foods purchased on behalf of any participant within the household. The consolidation of multiple purchases onto one transaction will create a higher quality of service for both participants and cashiers by reducing the transaction time.

1.2. Participant Stigma Reduction

Participants will notice a stigma reduction with WIC EBT as their shopping experiences resembles any other shopper. Participants will not be as easily identifiable as the WIC EBT card resembles and functions like credit or debit cards. Additionally, WIC EBT will allow participants to combine all WIC and non-WIC purchases into a single transaction, and use multiple payment types including WIC EBT card, Supplemental Nutrition Assistance Program (SNAP) card, credit, or debit. These features will make the WIC transactions resemble any other transaction, in so doing will reduce the participant stigma.

1.3. Participant Food Benefit Redemption Flexibility

In order to maximize their benefits redemption, participants must follow rigid food instrument redemption policies that may not always be convenient or in alignment with their shopping habits and lifestyle. With paper food instruments, participants must purchase all food quantities prescribed on the food instrument at the same time or forego the food benefit. If a vendor is out of stock on a specific food, the participant must choose between going to a different store or to not purchase the food and forego the benefit. Participants that use public transportation or walk may be unable to carry all foods.

With the implementation of WIC EBT, the participant will be able to purchase foods as best fits their lifestyle and purchasing habits. Participants can purchase one food item or the entire family's food benefits, reducing risk of spoilage, travel concerns, and returning the decisions around timing purchases to into the hands of the participant and what serves their family. Should a vendor not have all food items, or a participant does not wish to secure all food items at the same time, the participant may choose to purchase what is available or desired, and retain the remainder of their benefits for future purchases.

1.4. Simplified Food Benefit Replacement

Participants typically change food packages because of an allergy or formula change and receive documentation from their doctor regarding a food allergy or a formula prescription. Currently, to obtain new food instruments, participants must schedule an appointment or walk-in to a WIC clinic where local agency personnel voids the original food instruments, issues, and prints new benefits. Participants must be present at a WIC clinic to obtain the food instruments.

With WIC EBT, Local Agency personnel will not issue a new WIC EBT card, but instead will update the participant's EBA. Participants will be able to change their food benefits remotely, submitting their doctor's food allergy documentation or prescription electronically or through fax to their WIC clinic without the requirement to be present at a WIC clinic. The participant will be able to use their WIC EBT card immediately to purchase the newly updated food benefits.

2. Cost Reduction

2.1. Returned Check Fee Elimination

The migration of WIC from paper food instruments to EBT transactions will eliminate all returned check fees that exist with food instruments processing. Vendors are monetarily responsible for food instruments rejections. Vendors deposit the food instruments at their bank to receive payment and the vendor's bank routes the food instrument through the Federal Reserve System to the Arizona WIC Program's Banking Contractor. The Arizona WIC Program Banking Contractor processes food instruments and checks for rejection reasons as documented in the vendor manual. Food instrument rejection reasons include but are not limited to the following:

- Unreasonable dollar amount,
- Over the maximum,
- Missing vendor ID stamp,
- Unreadable vendor ID stamp,
- Missing signature,
- Altered food instrument,
- Stale date,
- Cashed early, and
- Cashed late.

Vendors receive payment for food instruments processed without error on the following business day. Returned check fees do not exist with WIC EBT as the form of tender changes from checks to a WIC EBT card and rejections take place instantaneously at the POS. Vendors will see a cost savings with the elimination of the returned check fee.

3. Problem Avoidance

3.1. Reduce Participant and Cashier Disputes

With the food instrument transaction, the cashier is responsible to make sure participants only purchase foods included in the Food List, which dictates the brands, types, and sizes of foods that participants can purchase. Cashiers work to resolve any participant disputes regarding if a food is WIC approved but when training issues or knowledge gaps are present, participants can experience a difficult or dissatisfactory transaction. When a resolution cannot be reached, the dispute can potentially be escalated to the store and/or corporate level management.

WIC EBT will improve the customer experience at the vendor POS by reducing participant and cashier disputes. The Arizona WIC Program will control the foods that participants are able to purchase with their WIC EBT card and creates a daily APL file that contains the current WIC approved foods. The vendor's cash register system will download the APL file daily and the cash register will allow participants to purchase only WIC approved foods included in the APL. As the cashier scans each WIC food, the cash register system will verify if the food is WIC approved. The cash register system, not the cashier, will determine if a food is or is not WIC approved, eliminating risk of misinterpretation or human error. The cashier will not resolve any WIC food disputes, but instead will refer participants to

the Arizona WIC Program for resolution. In disputes, the Arizona WIC Program will review the food item in question and either add the food to the APL or provide the participant with reasons why the food is not WIC approved.

3.2. Magnetic Ink Character Recognition (MICR) Printer Alignment

The Arizona WIC Program uses MICR printer to print food instruments. MICR printers use special toner with magnetic ink, containing iron oxide. Banks use MICR technology in processing food instruments. The MICR printer requires an alignment to ensure that it encodes the food instrument with the bank account number and routing number in the required location.

MICR printers are prone to maintenance issues, and can experience failures. Local Agencies with misaligned or out of service MICR printers may be unable to issue food instruments. Large WIC clinics have more than one MICR printer, and can print food instruments while the other MICR printer requires an alignment or maintenance, however, small WIC clinics only have one MICR printer and cannot print food instruments until a technician fixes the alignment. In the meantime, the participant must go to a different WIC clinic or wait until a technician has fixed the printer or its alignment to receive food instruments.

3.3. Federal Mandate

The project will ensure that the Arizona WIC Program meet the Federal mandate to implement WIC EBT by October 1, 2020 as required by the Healthy, Hunger-Free Kids Act of 2010. The Arizona WIC Program will provide participants with a magnetic stripe card to access their family food benefits at any vendor POS.

4. Risk Avoidance

4.1. Improved Food Benefit Security

WIC EBT will provide participants with increased food benefit security. The Arizona WIC Program cannot replace paper food instruments once lost or stolen, however, participants will be able to receive a replacement WIC EBT card if lost or stolen as the benefits are stored in the WIC EBT System. Participants can call the WIC clinic or the WIC EBT Contractor's help desk to report a lost or stolen card, and the WIC EBT system will deactivate the participant's WIC EBT card. The participant will obtain a replacement WIC EBT card at any WIC clinic with their remaining benefits intact.

4.2. Improved Cost Containment

The Arizona WIC Program conducts WIC food cost containment to ensure the most effective use of the limited WIC foods budget and maximize participation by limiting fraud and controlling food costs across vendors. The Arizona WIC Program utilizes a cost containment model that includes a vendor peer group system, competitive price criteria, and allowable reimbursement levels that demonstrate compliance with cost containment provisions.

Food instruments contain prescription based food benefits with specific quantities, but only formula food instruments specify a brand, type, and size. The Arizona WIC Program requires participants to purchase all formula quantities on the instrument, but does not require participants to purchase all quantities of foods on the food instrument. Consequently, redemption values for similar non-formula food instruments are not directly comparable to each other due to variations in brand, type, size, and uncertainty as to the redemption of all food items prescribed by the food instrument.

With WIC EBT, the Arizona WIC Program will receive more data, especially around cost containment and participant purchasing habits as the WIC EBT system captures data based on individual food items rather than at the food instrument level. This data will improve financial visibility, fraud detection and prevention, and cost containment. The Arizona WIC Program will have real time visibility of WIC EBT transaction and be able to track program food expenses and remaining liabilities. The Arizona WIC Program will monitor participant transactions using data such as transaction times, transaction amounts, and specific data on which WIC food are included in purchases.

4.3. Eliminate Early and Late Transactions

The Arizona WIC Program requires participants to access food benefits within the FDTU and LDTU. Outside of this date range, vendors must reject the food instrument and deny the sale. With paper food instruments however, vendors are able to accept food instrument prior to the FDTU and after the LDTU by falsifying the Food Instrument "Date of Use" box with a date that is within the accepted range. The vendor must deposit the food instrument with their bank within 60 days of the FDTU to receive payment, which often leaves a significant window of time for the vendor to perpetrate fraud by forging dates.

With WIC EBT, the WIC EBT System will manage the validation of FTDU and LDTU, and will not allow the participant to access previous or future food benefits. During the WIC EBT transaction, the WIC EBT system will verify the participant food purchases against available current month food benefits. The WIC EBT System will immediately void expired, previous month food benefits via nightly processes on the LDTU and these benefits are no longer available to the participant. The WIC EBT system will not allow the WIC EBT card to access future food benefits until the current food benefits expire, eliminating the possibility of using benefits prior to the FTDU.

4.4. Improved Fraud Identification

WIC EBT provides the Arizona WIC Program with transaction data that does not exist with food instruments and will use the transaction data to improve participant and vendor fraud identification. The EBT Contractor will provide reports to identify potential fraud including:

- Transactions outside of business hours
- Transactions with manually entered WIC EBT card number
- Repeated WIC EBT card replacement

The Arizona WIC Program will have access to new tools to support fraud identification, and will be able to conduct inventory audits for all foods. Currently, the Arizona WIC Program is only able to conduct inventory audits for formula. Inventory audits identify if the vendor is selling more WIC foods than are actually on hand, by comparing WIC food sales against actual invoices for a set period.

III. Technology Approach

A. *Proposed Technology Solution**

1. Approach

The Arizona WIC Program will replace participant food instruments with online WIC EBT using a magnetic stripe card. WIC EBT implementation requires changes to the HANDS system, a hosted WIC EBT system, and vendor cash register systems that can process WIC EBT transactions. Online WIC EBT changes the entire process from food benefit issuance, redemption, settlement, and reconciliation. This effort will require significant coordination of all stakeholders working together for this project to be successful. To begin the WIC EBT Project, FNS required the Arizona WIC Program to complete a Feasibility Study and an IAPD.

The Feasibility Study documented the available WIC EBT technologies, online and offline, and the benefits and challenges associated with each technology. The Feasibility study revealed that online WIC EBT with a magnetic stripe card provided stakeholders with the most benefits while being affordable to operate. The Feasibility Study analyzed building an in-house WIC EBT system compared to an outsourced WIC EBT system, indicating the Arizona WIC Program does not have the infrastructure, staffing, knowledge, or expertise to develop and host a WIC EBT system.

The IAPD documented the Arizona WIC Program project plan, scope, and budget to implement WIC EBT. A FNS approved IAPD allowed the Arizona WIC Program to request WIC EBT technology grant funds from USDA to update HANDS, procure a WIC EBT Processor to implement and host a WIC EBT system, and procure a Quality Assurance (QA) to provide project oversight over the life of the project. ADHS Procurement released the EBT Implementation and Processing Services Request for Proposal (RFP) and EBT QA RFP on May 1, 2015. Both RFPs closed on August 25, 2015 and ADHS Procurement is in the process of completing the Award Recommendations. The Arizona WIC Program will sign contracts with the WIC EBT Contractor and QA Contractor following FNS and ITAC approval.

1.1. Online WIC EBT Processing

WIC EBT processing refers to the sequence of events that occur when the participant makes a purchase with their WIC EBT card to obtain WIC food at an authorized vendor. When presented at the checkout lane, the WIC EBT card will allow the POS to obtain the food benefit balance associated with the WIC EBT card to start the WIC purchase. A cashier will scan a food item Universal Product Code (UPC) or Price Look-Up (PLU) at the POS; the vendor system will match the UPC or PLU against the list of WIC food items defined in the APL to obtain the category and subcategory for the food item. The vendor's system will match the category and subcategory of the scanned food items against the remaining WIC food balance associated with the WIC EBT card.

Online WIC EBT refers to the processing option where the vendor POS completes the WIC transaction in real time through messages sent from the vendor to the WIC EBT System and back at the time of purchase. The WIC EBT System responds to the message request with a response, which approves or denies the WIC purchase. Online WIC EBT transaction processing uses a payment card that has a magnetic stripe to perform a series of real-time transactions between the vendor Card Acceptor Device (CAD) and the WIC EBT system to approve the WIC transaction. The POS obtains the benefit balance from the WIC EBT System using the participant card number and a valid PIN. The card number links to an account that contains the EBA benefit balance. The participant presents food items for purchase and the POS compares these food items with the Arizona WIC Program APL and against the EBA balance to determine the available benefits. The POS sends food items that match the available benefits and the APL to the WIC EBT system for approval. The WIC EBT system authorizes each food item and calculates the payment amount to the vendor.

1.2. Staffing Changes

The scope of this project required one additional full time employee added to State personnel and additional contracted resources to support the project. The Arizona WIC Program must obtain additional staffing resources for HANDS Design, Development, and Implementation (DD&I), WIC EBT System DD&I and Quality Assurance (QA) services during project development through statewide rollout. The Arizona WIC Program will maintain the current HANDS MIS solution while implementing a new WIC EBT technology.

1.2.1. ADHS Personnel

In addition to the existing Arizona WIC Program personnel, ADHS hired a WIC EBT IT Project Manager to manage the project scope, budget, and schedule. The WIC EBT IT Project Manager reports to the Information Technology Application Services Manager. The WIC EBT IT Project Manager will oversee HANDS development, WIC EBT System development, and QA services while providing WIC EBT subject matter expertise to support Arizona WIC Program personnel during revisions to policies and procedures. The Project Manager has a Project Management Professional (PMP) certification and over four years of WIC experience.

1.2.2. HANDS Contractor

The Arizona WIC Program will utilize its HANDS DD&I Contractor to provide requirements documentation, system enhancements, testing, and training for system augmentation and necessary improvements to support WIC EBT. The HANDS DD&I Contractor will design the system by working with Arizona WIC Program personnel in Joint Application Design (JAD) sessions to create Business Requirement Documents (BRD) for food benefit issuance, Universal Product Code (UPC) Database, backend database changes, settlement, reconciliation, and reports. Once the BRDs are complete and approved, the HANDS DD&I Contractor will update HANDS and create all necessary system documentation.

1.2.3. WIC EBT Contractor

The Arizona WIC Program will procure a contractor to implement and host a WIC EBT system, and provide transaction, settlement, and reconciliation services that meet Arizona WIC Program, Arizona Statewide IT Policies and FNS requirements. The WIC EBT system will meet requirements documented in the most recent version of the FNS Operating Rules, WIC Universal MIS/EBT Interface (WUMEI), and the Technical Implementation Guide. The WIC EBT Contractor will host JAD sessions with State and Local Agency personnel to determine if additional WIC EBT system functionality is required.

The WIC EBT Contractor will support stakeholders as they prepare for WIC EBT from development through statewide rollout. In addition to the WIC EBT system, the WIC EBT Contractor will provide test environments and WIC EBT cards to support HANDS and vendor cash register system development. The test environments allow the HANDS DD&I Contractor and vendors to test their system against the WIC EBT system on their own schedule.

The WIC EBT Contractor will serve as the single source for procuring hardware and materials required to operate WIC EBT. The WIC EBT Contractor will procure and ship vendor and Local Agency hardware and materials for operations. The WIC EBT Contractor will provide expertise and materials to support Local Agency personnel, participants, and vendors with stand-beside solution. The WIC EBT Contractor will provide all WIC clinics with magnetic stripe cards and automate card delivery when card inventory reaches minimum thresholds.

1.2.4. QA Contractor

The Arizona WIC Program will procure a Contractor to provide project oversight of the WIC EBT project through statewide rollout, as required by FNS. The QA Contractor will independently review the work products by the Arizona WIC Program, the HANDS DD&I Contractor and the WIC EBT Contractor; provide on-site support during User Acceptance Testing (UAT), pilot and statewide rollout. It is the Arizona WIC Program's intent to select a QA Contractor with both WIC and WIC EBT experience. To avoid a conflict of interest, the WIC EBT Contractor and QA Contractor will not be the same.

1.3. System Changes for WIC EBT

1.3.1. HANDS

Participant benefit issuance will originate in the HANDS application. Local Agency personnel use HANDS to certify participants and issue food benefits. Currently, HANDS does not have functionality to support WIC EBT food benefit issuance, settlement, and reconciliation. The HANDS DD&I Contractor will provide requirements documentation, HANDS enhancements and system maintenance, and user training. HANDS will require enhancements to support:

- Changes to food categories and food subcategories,
- Adding a Universal Product Code (UPC) database,
- Changes to food benefit issuance,
- Creating an interface with WIC EBT system,
- Changes to settlement and reconciliation, and
- Changes to reports.

Food Categories and Food Subcategories

WIC EBT food benefits will be structured into FNS defined food categories and food subcategories, where foods are grouped in general categories, and subcategories provide further detail and better define a specific food item type. The HANDS DD&I Contractor will update the HANDS database to include a base table that defines all food categories and food subcategories. The Arizona WIC Program will organize all WIC food items into a specific FNS defined food category and food subcategory. An example of the FNS defined food categories and food subcategories are detailed in Table 4.

Table 4 - FNS Food Category/Subcategory Sample

Food Category	Category	Food Subcategory	Description
Cheese or Tofu	02	000	Cheese - all authorized
		001	Cheese
		002	Low fat cheese
		003	Low Sodium Cheese
		004	Tofu
		005	Cheese - Kosher
Eggs	03	000	Eggs - all authorized
		001	Fresh shell eggs
		002	Dried egg mix (powder)
		003	Liquid Whole Eggs
		004	Boiled eggs

UPC Database

The UPC Database contains all of the Arizona WIC approved foods. The Arizona WIC Program is obtaining UPC data from vendors and manufacturers. The UPC Database will interface with UPC collection software that allows the Arizona WIC Program personnel to collect food item data while visiting vendors as well as support file imports and manual entry of food item data into the database. UPC Database fields include:

- UPC/PLU
- Manufacturer
- Brand
- Description
- Size
- Unit of Measure
- Pack Size
- Pack Type
- Benefit Unit Quantity
- Benefit Unit
- Food Category
- Food Subcategory
- Effective Date
- End Date

Food Benefit Issuance

Food packages drive the participant food benefits and define the prescription of food benefits that participants receive. With WIC EBT, food benefits will be structured into food categories and food subcategories. A food package contains a prescription of benefits that includes specific food categories. Local Agency personnel will customize the food benefits with the specific food subcategories that the participant desires.

The Arizona WIC Program will replace participant food instruments with a WIC EBT card for the family. Food benefit issuance will change from food instruments to WIC EBT.

Interface with WIC EBT System

HANDS will interface with the WIC EBT system to exchange and receive information necessary to issue, redeem, settle, and reconcile food benefits. HANDS will communicate with the WIC EBT system by using batch file transfers and real-time messages. The HANDS DD&I Contractor will build the HANDS/WIC EBT system interface according to WUMEI specification. The WIC EBT Contractor will provide the Interface Specifications document that provides additional information specific to their WIC EBT system that the HANDS DD&I Contractor will need the interface to HANDS.

WUMEI Document

The WUMEI standardizes the functional requirements for the universal interface between the WIC MIS and the WIC EBT system used in the WIC Program. The WUMEI identifies the database of record for specific types of information, whether the data should originate from HANDS or the WIC EBT system. The WUMEI defines and describes:

- The types of WIC MIS and WIC EBT systems,
- The types of interfaces between WIC MIS and WIC EBT systems,
- The functions to be supported in the Universal Interface,
- The core data elements required by the defined functions,
- The processing rules to be implemented to support the functions, and
- The recommended distribution of functions unique to a WIC/EBT Universal Interface.

Settlement and Reconciliation

HANDS settlement functionality will change to reflect WIC EBT. The Arizona WIC Program will replace participant based food instrument settlement data with family transaction data. The WIC EBT system will settle all transactions approved before the Arizona WIC Program designated cut-off time for payment on the following business day. The WIC EBT system will send a batch file transfer of the settlement information to HANDS every business day.

HANDS will reconcile family and participant food benefits daily by de-aggregating family transaction data back to each individual participant. HANDS will have logic to take a WIC transaction and assign each food item purchase back to a specific participant based on participant category and age. The Arizona WIC Program will reconcile family food benefits against the family's benefit month detailing issued, redeemed, voided, and expunged food benefits.

Reports

The Arizona WIC Program will maintain current and historic food instrument reports while building new WIC EBT reports. Additionally, the Arizona WIC Program will evaluate all report and determine if each report will continue to exist within HANDS or the WIC EBT system.

1.3.2. Vendor Cash Register Systems

Vendors have two types of cash register systems, integrated and non-integrated. Integrated cash register systems have computer, monitor, cash drawer, receipt printer, customer display, scale, barcode scanner, debit/credit reader, and a signature pad. A non-integrated cash register is a basic cash register with cash drawer. Vendors will update their cash register systems to conduct online WIC EBT transactions.

Integrated Cash Register System

There are two types of integrated cash register systems, off-the-shelf and proprietary. Vendors purchase off-the-shelf integrated cash register systems from Value Added Resellers (VARs). VARs install, implement, and maintenance electronic cash register systems and train vendor personnel on system functionality. The VAR will update the software and hardware to support WIC EBT transaction.

Vendors design and develop proprietary cash register systems to meet their needs and requirements. Typically, in-house vendor IT personnel will develop, maintain, and operate their proprietary cash register system. Therefore, vendor IT personnel will modify the cash register system to include new functionality to process WIC EBT transactions.

Non-integrated Cash Register System

Vendors with non-integrated cash register systems cannot update their system to process WIC EBT transactions. Per the federal mandate, the Arizona WIC Program will provide non-integrated vendors with a stand-beside solution for processing only WIC EBT transactions. The stand-beside solution includes a computer terminal with card reader, keypad, and display, barcode scanner, and PIN terminal. The Arizona WIC Program will provide each vendor with at least one stand-beside solution and providing additional devices based on monthly WIC sales redemptions. The Arizona WIC Program will procure the stand-beside solution from the WIC EBT Contractor. The WIC EBT Contractor will ship and install the devices and train vendor personnel. Refer to the Proposed Technology Solution Section 4.4 - Hardware for more information about the stand-beside solution.

1.3.3. WIC EBT System

The Arizona WIC Program will implement an existing WIC EBT system, as there is not sufficient staffing, infrastructure, knowledge, or expertise to develop and operate an in-house online WIC EBT system. There are knowledgeable, experienced companies that can implement and host an online WIC EBT system and provide transaction processing, settlement, and reconciliation services. The Arizona WIC Program will procure a WIC EBT contractor to implement and host a WIC EBT system that meets Arizona WIC Program and FNS requirements documented in the WIC EBT Operating Rules, WIC Universal MIS/EBT Interface, and Technical Implementation Guide. These FNS documents standardize the implementation process and define stakeholder roles to minimize the Arizona WIC Program and vendor implementation costs.

WIC EBT Operating Rules

The WIC EBT Operating Rules provides a framework for the initiation and continuing operation of a WIC EBT system by defining the operating rules for the entities participating in the program: Arizona WIC Program, participants, cash register system providers, vendors, acquirers and the processors for those entities. The WIC EBT Operating Rules lays the groundwork to provide services consistently regardless of the Processor or vendor location. FNS modeled the operating rules after operating rules used by debit, ATM and credit payment networks.

Operating rules define the environment of WIC transactions and give a framework for mitigating errors and assigning liabilities. The Operating Rules define the responsibilities of each person or company that

becomes involved in handling a WIC EBT transaction, including the participant, vendor, vendor's cash register and payment providers, the EBT Processor, the Arizona WIC Program and the banks where funds are paid and deposited for successful WIC purchases.

System Requirements

The Online EBT Implementation and Processing Services RFP detailed the WIC EBT system requirement including:

- System Availability,
- Interface with HANDS,
- Authorized Products List,
- Account Setup and Maintenance,
- Vendor Transaction Processing,
- Settlement, and
- Reconciliation.

The Arizona WIC Program required that the WIC EBT System have an uptime of 99.9% of the time on an hourly basis, 24 hours per day, and seven days per week to allow participants access to their food benefits at all times. Uptime refers to the time the database is available and accessible for acceptance of message data, files transfers and transaction processing and excludes schedule downtime for maintenance, with uptime measured on a rolling 30-day basis.

Interface with HANDS

The HANDS/WIC EBT system interface will allow for communication between the two systems through real-time messaging and batch file transfers using standard and secure protocols over the internet. The WUMEI defines whether real time messaging and batch file transfers will originate from HANDS or the WIC EBT system.

Real time messages will allow HANDS and the WIC EBT system to communicate in real time. HANDS will send and receive real time messages from the WIC EBT system to perform functions such as benefit issuance and redemption.

Batch file transfers will exchange bulk data between HANDS and the WIC EBT system, and synchronize data stored in separate locations. The WIC EBT Contractor will configure batch file transfers that the WIC EBT system sends to HANDS. The WIC EBT system will accept batch file transfers that are sent from HANDS.

APL

The WIC EBT system will have the ability to generate an APL. The APL is an electronic file of all the UPCs and PLUs authorized by the Arizona WIC Program. In the APL, each food item is uniquely identifiable by a specific food category, food subcategory, quantity of benefits, and benefit description. Vendor cash register systems will use the APL to validate individual food purchases. If a food item's UPC is not stored in the APL, then participants will not be able to purchase the food item. The WIC EBT system will create the APL file and make the file available to TPPs, integrated vendors, and non-integrated vendors.

EBA's

The WIC EBT system will create and maintain an EBA for each family using data from HANDS including family ID numbers and demographics such as participant's name, address, and phone number. In addition to family accounts, the WIC EBT system will have functionality for different account types that personnel may use for disasters, training, or compliance.

The WIC EBT system will receive real time participant food benefits data from HANDS and link the family food benefits to the EBA. The WIC EBT system receives real time messages from HANDS as participant food benefits change and update the family food benefits in the WIC EBT system.

Local Agency personnel will issue the participant a WIC EBT card in HANDS, then HANDS will send the card issuance data to the WIC EBT system using real time messages. The message will contain the card number, card action (activate/deactivate), participant name, family ID number, and WIC clinic ID number. The WIC EBT system will associate the WIC EBT card to the EBA. HANDS will transmit the participant's encrypted PIN to the WIC EBT system through a real time message.

Vendor Transaction Processing

The WIC EBT system will have the ability to receive, process, and authorize participant transactions from vendor cash register systems in real time transactions. The WIC EBT system will ensure that participants may access their food benefits at all vendor locations. The WIC EBT system processing requirements included:

- Accepting transactions from acquirers,
- Authorize or deny transactions,
- Send response messages back to the acquirer authorizing or denying participant transactions,
- Provide the data necessary to print a participant receipt with account balance after the transaction, and
- Log the authorized and denied transactions for settlement, reconciliation processing, transaction reporting, and for view through the transaction history.

The WIC EBT system will support online, commercial network and direct connect communication with vendor cash register systems. The WIC EBT Contractor will establish direct and indirect telecommunications connections for the routing of transactions and delivery of files to vendors, acquirers, or TPPs. A direct connection does not utilize a TPP to route transactions to and from the WIC EBT system. An indirect connection utilizes TPPs to route transactions to and from the WIC EBT system.

The WIC EBT system will maintain a 24-hour business day processing cycle. The Arizona WIC Program and the WIC EBT Contractor will designate a standard daily cut-off time at a time of day that will allow Automated Clearing House⁴ (ACH) payments for the next business day settlement. The WIC EBT system will automatically settle all transactions processed prior to the daily cut-off time on the following business day.

⁴ ACH is an electronic network for electronic funds transfer.

Transaction Message

Transaction messages are the communication exchange between the vendor cash register system and the WIC EBT system. The WIC EBT system will provide transaction message data for the following transactions:

- Benefit Inquiry,
- Purchase,
- Reversal (line by line),
- Void (entire transaction within 24 hours), and
- Store and forward.

The WIC EBT system will conduct validations to determine whether to approve or deny a transaction. The validations will include determining whether:

- Transaction originated from an approved vendor,
- Transaction originates from a known stand-beside solution,
- The card number is valid and the card is active,
- The number of consecutive failed PIN attempts has not been exceeded,
- The account is active,
- The UPC or PLU is verified for each purchased food item, and
- The food items are validated against the current list of approved food categories/subcategories and UPCs/PLUs.

The WIC EBT system will return a message to the cash register system with the reason for denial (e.g. invalid card number, invalid terminal, etc.).

Transaction Processing Rules

The WIC EBT system will provide real-time transaction processing, meaning instantaneous response to querying vendor endpoint terminals, as to whether a transaction is approved or denied.

The WIC EBT system will abide by the following rules when processing a transaction:

- Obtain the purchase quantity from the APL benefit quantity field,
- Provide an approval or denial for each food item,
- Provide a reason code for all rejected food items,
- Deduct benefits from subcategories greater than "000" before deducting benefits from the broadband food subcategories, and
- Process a maximum of fifty WIC items in a single transaction.

The WIC EBT system will decline an item from a transaction if:

- The food is not an authorized UPC/PLU or food category/subcategory,
- The food is not a UPC/PLU, food category/subcategory, or size that is authorized in the EBA, and
- Sufficient quantities of the food category/subcategory are not available in the EBA,

Not to Exceed (NTE) Adjustment

When authorizing a transaction, the WIC EBT system will compare the food item price against the peer group NTE for the subcategory or for the UPC. If the food item price is greater than the NTE for the vendor's peer group, the WIC EBT system will approve the food item purchase at the NTE price. The WIC EBT system will return a message to the vendor's cash register system that contains the amount paid for the food item.

Receipts

The WIC EBT system will provide vendors with data to print receipts including:

1. Beginning balance,
2. Benefits utilized,
3. Ending balance, and
4. Benefit expiration date.

Please see Figure 3 for a sample WIC EBT receipt from another state using WIC EBT.

Figure 3 - Sample WIC EBT Receipt

ST# 0720 OP# 00006664 TEN 03 TR# 07770

BEGINNING BALANCES	
ACCOUNT #	*****9685
EXPIRATION DATE	08/31/2014
2.00 CONT	11.5/12.0/46/48 OZ JUICE
6.00 GAL	2%, 1%, 1/2% OR SKIM MILK
10.00 EA	FRUIT AND VEGETABLES-CVB
0.00 OZ	WHOLE GRN BRD/TORT/RICE
30.00 OZ	CANNED FISH
0.75 CONT	BEANS/PEAS/CANNED BEANS
1.00 CONT	PEANUT BUTTER
23.00 OZ	BREAKFAST CEREAL
2.00 DOZ	EGGS
1.00 LB	CHEESE

Benefits expire at midnight on
08/31/2014

08/12/14 15:44:10

1. Beginning Balance

ST# 0720 OP# 00006664 TEN 03 TR# 07770

WIC BENEFITS UTILIZED	
11.5/12.0/46/48 OZ JUICE	2.00
0002800027525 CONT	2.88
0002800027249 CONT	2.88
BEANS/PEAS/CANNED BEANS	0.75
0003940001880 CONT	0.92
0003940001747 CONT	0.92
0003940001734 CONT	0.92
PEANUT BUTTER	1.00
0004530000537 CONT	2.48
BREAKFAST CEREAL	11.80
0003000001210 OZ	2.50

2. Benefits Utilized

ENDING BALANCES	
ACCOUNT #	*****9685
EXPIRATION DATE	08/31/2014
0.00 CONT	11.5/12.0/46/48 OZ JUICE
6.00 GAL	2%, 1%, 1/2% OR SKIM MILK
10.00 EA	FRUIT AND VEGETABLES-CVB
0.00 OZ	WHOLE GRN BRD/TORT/RICE
30.00 OZ	CANNED FISH
0.00 CONT	BEANS/PEAS/CANNED BEANS
0.00 CONT	PEANUT BUTTER
11.20 OZ	BREAKFAST CEREAL
2.00 DOZ	EGGS
1.00 LB	CHEESE

3. Ending Balance

Benefits expire at midnight on
08/31/2014

08/12/14 15:45:50

4. Benefit Expiration Date

Transaction History

The WIC EBT system will maintain three years of data for real time access. The WIC EBT Contractor will maintain an additional four years of archived data that is retrievable within 48 hours.

Settlement

The WIC EBT system will operate on a 24-hour processing cycle. At the designated cutoff time each day, the WIC EBT Contractor will close out the current processing day and commence the next processing day.

WIC Benefit Data Files

The WIC EBT system will transmit a daily file to HANDS that provides detailed record of all benefit redemption activity. The information transmitted is on the WIC EBT system processing day. The daily file includes all vendor transactions detailing:

- A full historical account of the transaction and the information that was current and used at the time of the transaction,
- Reversals or voids as two separate transaction (the original transaction and the subsequent reversal or void),
- Adjustments to food benefits requested by HANDS and completed by the WIC EBT system, and
- Transactions with discounts or coupons.

Expired and Expunged Benefits

The WIC EBT system will transmit a daily file to HANDS that provides a detailed record of all expired benefits. The WIC EBT system will expunge food benefits no earlier than five business days after the expiration date.

Daily Settlement

The WIC EBT system will initiate settlement to vendors, acquirers, and TPPs. The WIC EBT Contractor will own and reconcile a clearing account for daily settlement and create an ACH transaction to move funds from the WIC EBT settlement account to the appropriate vendor, acquirer, or TPP bank account.

The WIC EBT system will calculate the amount due to each vendor, acquirer or TPP based on transactions approved to that entity within the settlement window and reimburse vendors for the sale of approved food items purchased at the requested price or NTE price, whichever is lower. The WIC EBT system will initiate settlement to direct connect vendors, acquirers or TPPs on the next business day.

Reconciliation

The WIC EBT System will reconcile food benefits to ensure that HANDS and the WIC EBT system food benefit issuance and redemption data match. The WIC EBT system will reconcile food benefits to the participant and family levels.

Auto Reconciliation File (ARF)

The ARF will contain a vendor specific file of all the transactions from the previous business day. The WIC EBT system will generate an ARF for each vendor to support transaction reconciliation. The WIC EBT system creates downloadable ARFs each business day that vendors are able to retrieve. The WIC EBT system has the ability to aggregate the transactions of multiple vendor locations belonging to the same local, regional, or national vendor. The WIC EBT system will make the ARF available on a secure data file retrieval site for download by the vendor.

Account Reconciliation

The WIC EBT system will reconcile each EBA and all WIC EBT data on a daily basis. For the EBA, the WIC EBT system will verify that each food category/sub-category units from the previous end of the processing day is equal to the units at the beginning of the processing day plus the net sum of benefits credited and debited as contained in the transaction history detail for the processing day. For all WIC EBT data, the WIC EBT system will verify that the quantity of each food category/subcategory end of the processing day net position is equal to the quantity at the beginning of the processing day plus the net sum of benefits credited and debited as contained in the transaction history detail for that processing day.

Settlement Reconciliation

The WIC EBT system will reconcile the dollar value of the business day transactions against funds settled to each vendor, acquirer and TPP, as applicable. The WIC EBT system will validate the sum of the amounts paid to vendors, acquirers, and TPP is equal to the total payments. If the system detects any settlement anomalies, the WIC EBT Contractor will provide an alert or report to notify users of errors in the settlement process within 24-hours of detection.

2. Development

2.1. HANDS

HANDS development will build the user interface and backend database changes to support WIC EBT. The HANDS Design Development & Implementation (DD&I) Contractor will work with the Arizona WIC Program to develop Business Requirements Documents (BRD). The BRDs will describe the HANDS business requirements, changes, and development approach.

2.1.1. JAD Sessions

JAD Sessions will define business requirements included in the BRDs. JAD sessions will include HANDS end users, State and Local Agency personnel. JAD sessions will focus on desired user functionality, defining user roles, meeting FNS requirements.

2.1.2. Development Approach

Development will use a modified agile, iterative methodology to accomplish tasks. Iterative development is an approach to software development that centers on the idea of moving development cyclically, rather than trying to do everything at once. Incremental development slices the system functionality into processes or features. Each increment delivers a slice of functionality through cross-discipline work, from requirements to deployment. Each iteration or “sprint” is a short time frame that lasts 4-weeks. Each iteration or sprint involves a team working through a full software development cycle including planning, requirements analysis, design, coding, unit testing, and quality assurance testing when a working set of features is completed.

This approach will allow developers to present features or functionality to the product owners as they are completed. This project will employ a checkpoint demonstration process that the HANDS DD&I Contractor will conduct with the WIC Program to review the application features implemented at that given time. The checkpoint demonstration will provide a glimpse of the application functionality, the user-interface, and operational navigation so that the Arizona WIC Program personnel can review the design completeness and translate the information from the BRD to actual screens. Furthermore, this type of development approach takes advantage of a shoulder-to-shoulder partnership model.

3. Systems Architecture

The HANDS and WIC EBT systems interact together to maintain food benefit, redemption, settlement and reconciliation data. The Arizona WIC Program will maintain the existing HANDS architecture for the WIC EBT project. The WIC EBT system architecture is not currently known, however the WIC EBT system requirements were defined within the EBT Online Implementation and Processing Services RFP.

3.1. HANDS Architecture

HANDS is a three-tier application consisting of presentation, application, and data tiers. The presentation tier displays information and provides the direct user interface (UI) with which Arizona WIC Program personnel will interact. The application tier controls the application’s functionality by performing detailed processing. The data tier provides data persistence, storage, and the access layer that exposes data to the other services. This model is widely accepted for its flexibility to recode or modify individual layers, such as a graphic user interface (GUI) refresh, with minimal impact to the other tiers.

This model is also widely regarded for its implications on improved safety of data. The separation of the tiers allows for more options when implementing security and separates these critical parts of the application so that any breach has minimal impact or reduced capability of harm.

3.1.1. Application Architecture

HANDS application exists as a Microsoft ASP.NET in the MVC 4 methodology using Razor as the view Engine, C# for core development, LINQ and DevArt for business data management, and Oracle for database management. The application architecture follows the four widely recognized tenets of Service Oriented Architecture (SOA):

- Boundaries are explicit,
- Services are autonomous,
- Services share schema and contract, not class and
- Service compatibility is policy driven.

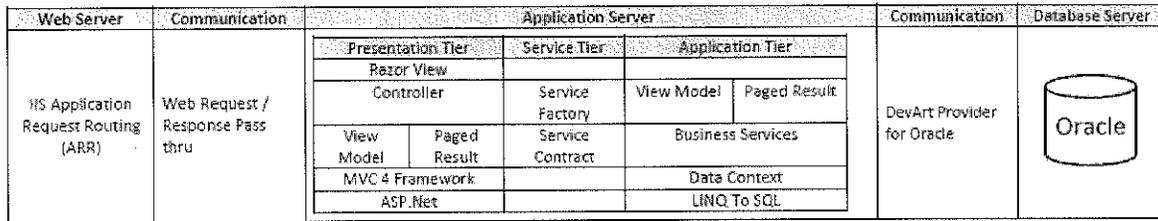
The system has a modern look and feel by using style sheets and jQuery widgets. The development team employed standard visual representation such as icons, images, hover messages, descriptive messages, and navigation.

The current standard for the development and application architecture is displayed below and is depicted in Figure 4.

Web Application Code Base:

- | | |
|---|------------------------------------|
| • <u>Application Framework:</u> | <u>Microsoft MVC ASP.NET 5.1.2</u> |
| • <u>Software Framework:</u> | <u>Microsoft .NET 4.5.1</u> |
| • <u>Source Language:</u> | <u>C# 5.0</u> |
| • <u>View Engine:</u> | <u>Razor</u> |
| • <u>Client Side Scripting Language:</u> | <u>JavaScript</u> |
| • <u>Object-relational mapping (ORM) framework:</u> | <u>Entity Framework 6 (Efv6)</u> |
| • <u>Database Management System:</u> | <u>Oracle 12g</u> |
| • <u>Procedural language extension for SQL:</u> | <u>PL/SQL</u> |
| • <u>Browser Plug-in</u> | <u>Microsoft Silverlight 5.1</u> |
| • <u>Data Query</u> | <u>Microsoft LINQ</u> |

Figure 4 - Current HANDS Application Platform



3.2. WIC EBT System Architecture

The WIC EBT Contractor was required to provide a comprehensive overview of the system design in its proposal that detailed the WIC EBT system configuration including processing components, databases, interfaces, fail-over systems and participating entities. The WIC EBT System requirements are defined within Attachment 3 - EBT Online Implementation and Processing Services RFP. The Arizona WIC Program expects the WIC EBT system to interface with multiple applications and stakeholders as referenced in Figure 5.

3.2.1. External Applications

Participants, Local Agency personnel, and Vendors will interact with the WIC EBT system through external components. The WIC EBT system will interface with external components and include the Automated Response Unit, Web Portal, HANDS, Vendor cash register systems, and ACH banks. The external components are detailed below.

Automated Response Unit

The automated response unit will provide the first line of communication for a participant outside of the clinic. The ARU will allow the cardholder to access their account using a telephone without speaking to a live person. The ARU will interface with the WIC EBT System, allowing the participant secure access to their account information. The ARU provides the cardholder with the following functionality:

- PIN Selection/Change
- Balance Inquiry
- Transaction History Inquiry
- Benefit Availability Inquiry

Web Portal

The Web Portal will allow the participants and vendors to access account or store information using any web browser, including mobile devices. The Web Portal will interface with the WIC EBT System allowing the participant or vendor to use a web browser to securely access their account or store information.

HANDS

HANDS is the Arizona WIC Program’s eligibility application that Local Agency personnel use for participant enrollment and food benefit issuance. HANDS will interface with the WIC EBT System to establish accounts and issue WIC EBT food benefits.

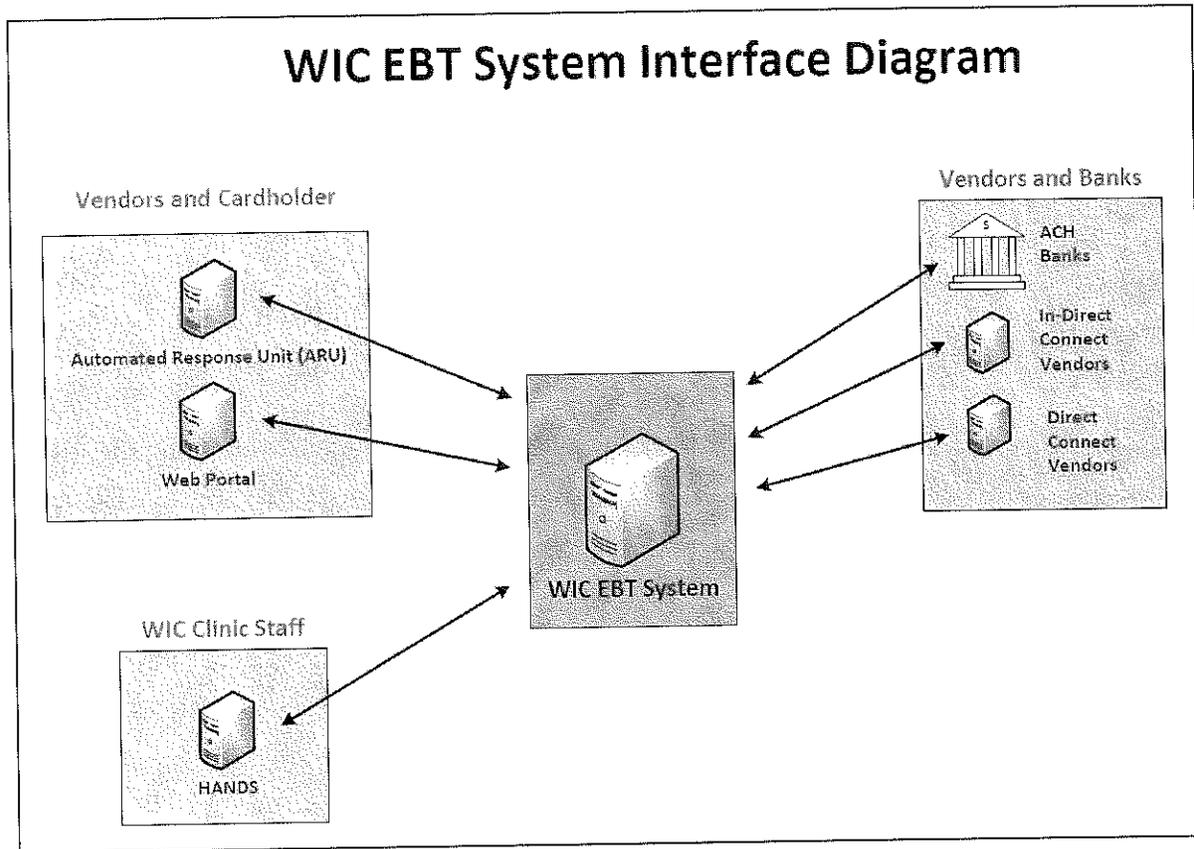
Vendors

Vendors refers to any WIC program approved location where cardholders may redeem their food benefits. Vendors will connect directly to the WIC EBT system or have an acquirer or TPP route the transaction to the WIC EBT system (in-direct connection). Vendors will connect with the WIC EBT system to download batch files necessary to operate WIC EBT, such as the APL and settlement reports.

ACH Bank

The ACH Bank is the entity that will send payments to vendor for all WIC EBT transaction approved on the previous business day.

Figure 5 - WIC EBT System Interface Diagram



4. Implementation

During implementation, the Arizona WIC Program, the HANDS DD&I Contractor and WIC EBT Contractor will prepare the systems, equipment, documentation, training, and support model for pilot and rollout. The Arizona WIC Program will leverage lessons learned from previous WIC EBT implementations in other states to ensure that HANDS, the WIC EBT system, and vendor cash register systems function properly and that all systems integrate for benefit issuance, redemption, settlement, and reconciliation. The WIC EBT Contractor will configure testing environments and cards to allow vendors and the Arizona WIC Program to test their systems in conjunction with the WIC EBT system.

The Arizona WIC Program will enable Local Agencies and vendors with necessary hardware and materials for WIC EBT operations. The Arizona WIC Program will provide Local Agencies with equipment and materials to issue WIC EBT cards to participants, and will provide non-integrated vendors with a stand-beside solution to conduct WIC EBT transactions.

Arizona WIC Program personnel will revise policies and procedures to support vendor and Local Agency operations. The policies will provide Local Agency personnel with specific processes for food benefit issuance, replacement, and voids. Additionally, Arizona WIC Program personnel will work in conjunction with the vendor community to revise the vendor manual and contracts to ensure that all policy and procedures are updated to capture all changes associated with WIC EBT.

The Arizona WIC Program will create a training plan that will ensure all stakeholders have the knowledge and materials as it relates to their role in WIC EBT. There will be multiple groups responsible for stakeholder training. The Arizona WIC Program will train Local Agency staff on HANDS and WIC EBT functionality, while Local Agency personnel will train participants on how to use their WIC EBT card. Meanwhile, the WIC EBT Contractor will train non-integrated vendors on stand-beside solution functionality, and integrated vendors will have internal trainers or POS providers train cashiers on cash register system functionality.

The Arizona WIC Program will provide all stakeholders with multiple options for support using various technology platforms. Participants will be able to access the web portal or call customer service for questions about their WIC EBT card, food benefit balance, or to report a lost or stolen card. Vendors can access the web portal or call customer service for assistance with their account, transactions, or additional questions. Local Agency personnel can call or email the WIC Service Desk for any questions or problems regarding HANDS or WIC EBT system.

The Arizona WIC Program will pilot WIC EBT in the Casa Grande WIC clinic and surrounding vendors for approximately three months. Prior to pilot, the Arizona WIC Program will train all Local Agency personnel, install all clinic equipment and verify that materials are on-hand. The Arizona WIC Program will collect all food data from nearby vendors and ensure that all vendor cash register systems can process WIC EBT transactions. During pilot, the Arizona WIC Program will provide on-site clinic and vendor support to ensure that any questions or issues are quickly resolved. Throughout and after pilot, the Arizona WIC Program will monitor metrics to track performance and customer service levels.

The Arizona WIC Program will rollout WIC EBT to the remaining WIC clinics and vendors using a phased approach. The phased approach will allow the Arizona WIC Program to provide clinic and vendor support while minimizing the time that vendors must accept both food instrument and WIC EBT cards. Prior to statewide rollout, the Arizona WIC Program will train Local Agency personnel and ensure that all clinics have equipment and materials on-hand. At the same time, the Arizona WIC Program will verify that all vendor cash register systems can process WIC EBT transactions, and continue to collect food data from all vendors. The Arizona WIC Program will provide on-site clinic and vendor support during the rollout to ensure prompt customer service. Following statewide rollout, the Arizona WIC Program will gather lessons learned from the project to apply towards future projects.

4.1. System Testing Requirements

The Arizona WIC Program will develop and maintain Test Plans for HANDS and the WIC EBT system, and integration of HANDS, WIC EBT Systems, and vendor cash register systems. The Test Plans will outline the test purpose, methodology, environment, personnel required, and approval rating system. The project requires that the Arizona WIC Program test HANDS, the WIC EBT system, and vendor cash register systems individually, as well as conduct integration testing of all systems working together.

4.1.1. HANDS Testing

Once development is complete and the system meets the UAT entrance criteria, the Arizona WIC MIS QA team will conduct UAT for HANDS enhancements. The team will utilize the current UAT processes and procedures as documented in the UAT Plan. The approach to UAT is for the MIS QA team to develop scenario-based tests, identified as test cases, in TFS. Test cases will represent real-life activities that would occur. These test cases will then be grouped together to create a complete real-life scenario organized in a test suite. These test cases and suites will test a series of functions within the system. UAT scripts will be comprehensive and address all requirements.

UAT is complete when all test rounds are complete. If defects are encountered completing test rounds, the Arizona WIC Program will consider prioritizing the focus of testing on those functions. Before the system is ready, open defects must be within the thresholds defined in the Test Plan.

The HANDS DD&I Contractor will provide a written UAT Readiness Certification that outstanding defects are within threshold limits as detailed in the Test Plan and that the application is ready for testing. The certification will include detailed information on all defects identified during system testing and resolutions for these defects or status if still open. Using the data in TFS, the MIS QA team will create reports that will assess the exit criteria status.

Project requirements for development, Quality Assurance (QA), and UAT will reside within the TFS system and come from various sources including the BRD, design documents, and the subject matter experts. The project's clarification and change request processes will help with managing scope and requirements and provide a method for documenting additional system information. The development and infrastructure teams will review all documented requirements, clarifications, and change request for potential security impacts.

4.1.2. WIC EBT System Testing

The WIC EBT Contractor has completed full testing of the WIC EBT system. New features or changes to the WIC EBT system must go through life cycle testing. The Arizona WIC Program detailed the WIC EBT system testing requirements within the EBT Online Implementation and Processing Services RFP and are documented below.

Life Cycle Testing

The WIC EBT Contractor will provide system technology life cycle testing services for the duration of the contract. The technology life cycle system test approach requires that the WIC EBT system, including any changes made to the WIC EBT system during the contract period, will be properly tested prior to being introduced into the production environment. The WIC Contractor will be required to meet the FNS system testing requirements, including the UAT requirements.

Contingency Testing

Contingency planning and testing ensures that essential (mission-critical) WIC EBT operations will continue if normal operations are disrupted at either the WIC EBT Contractor's or the Arizona WIC Program's primary site. The Arizona WIC Program has a fail-over site and requires that WIC EBT Contractor establish a fail-over site, with full computer systems and complete or near-complete back-ups of user data, for continued operations in case of failure at the primary operations site. The WIC EBT Contractor will also specify the amount of time (length of outage) expected to move operations back to the primary system from the fail-over system. The Arizona WIC Program also requires an escalation process that includes notification of the Program Project Manager or designated staff. Post-incident recovery procedures and responsibilities are also required to facilitate the rapid restoration of normal operations at the primary site or, if necessary, at an alternate facility, following destruction, major damage or other significant interruptions of the primary site. During the operations phase, business continuity and fail-over testing for the WIC EBT system will be conducted once per year. If necessary, an additional test may be requested during a given year, with testing not to exceed two tests in one year.

Security Control Testing

The WIC Contractor will utilize an outside third party auditor to conduct security audits annually showing compliance with security terms of the contract. The WIC EBT Contractor will provide the auditor(s) with administrative access to the WIC EBT system. Upon request from the Arizona WIC Program, the WIC EBT Contractor will provide the results of those assessments/audits, including actions taken to address findings. The audits will be conducted by qualified parties independent of the WIC EBT Contractor's IT organization.

Vulnerability Testing

At least once per year, the WIC EBT Contractor will perform vulnerability testing (assessment) on the WIC EBT system. The vulnerability assessment will test the system to locate, diagnose, and correct areas of weakness that might make it susceptible in times of crisis, attack, or destabilization. The WIC EBT Contractor will provide the Arizona WIC Program with a summary report of the results of the vulnerability assessment and any corrective actions that need to be taken.

Test Environment

The WIC EBT Contractor will provide the Arizona WIC Program with access to a test environment for the duration of the Software Development Life Cycle (SDLC). The WIC EBT Contractor will work with Arizona WIC IT to determine if the test environment will need to be linked to the HANDS test environment. The WIC EBT Contractor will provide five stand-beside POS terminals and five PIN selection terminals to the Arizona WIC Program for testing transactions and clinic operations. The Arizona WIC Program will include in its quantity of leased and/or purchased stand-beside POS terminals and PIN selection terminals those terminals to be used during testing. Any deficiencies identified during system testing will be corrected and re-tested. Both the Arizona WIC Program and FNS will formally accept and approve the WIC EBT system before the system is introduced into production and operations can begin.

Test Scripts and Data

The test scripts will be developed by the WIC EBT Contractor with input from the Arizona WIC Program and will be reviewed by FNS and approved by the Arizona WIC Program. The scripts will detail step-by-step instructions on the actual test and system functions to be demonstrated. Test scripts will describe the desired system outcomes and test results. The WIC EBT Contractor will develop test data to be used for the formal test scripts. The Arizona WIC Program and FNS may develop additional test data to be

used in adhoc testing. The WIC EBT Contractor will utilize TFS for managing test scripts and link all test scripts to requirements in TFS.

4.1.3. Combined HANDS/WIC EBT System Testing

The WIC EBT Contractor will conduct testing of HANDS and WIC EBT system to ensure that both systems communicate information properly. The WIC EBT Contractor will conduct connectivity, interface, and the HANDS/WIC EBT System UAT.

Connectivity Testing

After HANDS development is complete, the WIC EBT Contractor will test the connection between HANDS and WIC EBT system. Interface testing will ensure that:

- Users can log into the WIC EBT system
- HANDS can access the WIC EBT Contractor's FTP server
- The WIC EBT Contractor can access the Arizona WIC Program file servers
- Test files can be exchanged between HANDS and the WIC EBT system

Interface Testing

Interface testing will validate that files and messages sent from HANDS to the WIC EBT system are properly received, accepted, and accurately processed, and vice versa. Interface testing will demonstrate rejection of duplicate files or records and transmission errors. FNS requires successful interface testing prior to moving onto the WIC EBT system UAT.

HANDS/WIC EBT System UAT

The Arizona WIC Program will conduct the WIC EBT System UAT upon successful interface testing. UAT includes Arizona WIC Program personnel, WIC EBT Contractor, HANDS DD&I Contractor, QA Contractor, and FNS. FNS will monitor the UAT procedures and outputs. UAT expands the scope of testing to include HANDS, the vendor stand-beside solution, Automated Response Unit (ARU), and web portals. The purpose of the UAT is to ensure that the WIC EBT system works according to system requirements. The WIC EBT Contractor will provide UAT training to all State and Local personnel participating in the UAT. The WIC EBT Contractor will lead the Arizona WIC Program through well defined, systematic scenarios that will exercise the system in an end-to-end fashion. The Arizona WIC Program will require a successful UAT certification prior to pilot.

4.1.4. Vendor Cash Register System Testing

Cash register systems will require a certification to guarantee that WIC EBT transactions, balance inquiries, voids, returns, settlement, and reconciliation function properly. A certified cash register system guarantees that the system will operate according to FNS Operating Rules and Technical Implementation Guide. The Arizona WIC Program will only allow vendors with a certified cash register system to process online WIC EBT transactions. The WIC EBT Contractor will provide vendors with detailed test scripts include detailed systematic instructions and the expected outcome. Certification is a four-step process:

1. Pre-Certification - Conducted by the vendor or vendor's POS provider to help ensure that the system is ready for certification and to identify any changes needed prior to Level 1 or Level 2 certification.
2. Level 1 Certification - Certification of an off-the-shelf system. A level 1 certification involves the Arizona WIC Program, vendor and WIC EBT Contractor going through the test scripts to ensure certifying that the outputs match the expected results.
3. Level 2 Certification - Certification of a cash register system through to their TPP. A level 2 certification involves the Arizona WIC Program, vendor and WIC EBT Contractor going through the test scripts certifying that the outputs match the expected results.
4. Level 3 Certification – Certification of a specific vendor location. A live compliance purchase will be required at the store to confirm hardware and software are operating correctly. Level 3 certification will require the attendance of Arizona WIC Program representatives running scripts and validating results.

Each cash register system certification is valid for only the vendor's specific hardware and software version. Vendors must obtain a new cash register system certification if any hardware components change or there are software changes.

There are exceptions to vendors completing all four steps of the certification process. Vendors that have already completed their cash register system certification in another state with the same WIC EBT Contractor will only need to complete a Level 3 certification. The stand-beside solution has already completed the Certification process up to the Level 2 certification and vendors with a stand-beside solution will only need to complete a Level 3 certification.

4.2. WIC Policy and Procedures Revisions

The Arizona WIC Program contracts with Local Agencies and vendors to provide services to participants. Within the contracts, the Arizona WIC Program requires Local Agencies and vendors to follow defined requirements, processes, and procedures. The Arizona WIC Program will revise the Local Agency and vendor Policies and Procedures to reflect WIC EBT.

4.2.1. Local Agency Policies and Procedures

The Local Agency Policies and Procedures are defined standards that the Arizona WIC Program requires all Local Agencies to uphold. The Arizona WIC Program will submit the revised Local Agency Policy and Procedures to FNS for approval. Policy and procedures impacted by WIC EBT include but are not limited to:

- Food package changes,
- Food benefit issuance,
- WIC EBT card issuance and replacement,
- WIC EBT security and reconciliation,
- WIC EBT education, and
- Reporting lost or stolen food benefits.

4.2.2. Vendor Policies and Procedures

The Arizona WIC Program contracts with vendors to sell WIC foods to participants. The vendor manual and contract details the vendors rights and responsibilities. The Vendor Management Team will update the vendor manual to reflect changes for WIC EBT and submit the documents to FNS for approval.

Vendor Manual

The vendor manual describes the Arizona WIC Program Vendor Management policies and procedures for the WIC supplemental nutrition delivery program, which includes the Arizona WIC Program vendor contract, vendor enrollment, training, monitoring, sanctions, payments, fair hearings, and informal settlement conferences. Arizona WIC Program personnel will adjust the vendor manual and contracts to reflect WIC EBT. The manual changes will include but are not limited to:

- Cash Register systems requirements,
- Participant identification,
- WIC EBT transaction procedures,
- Settlement,
- NTE price adjustments,
- Training,
- Vendor Monitoring, and
- Violations and Sanctions.

Vendor Contract

The vendor contract changes will include:

- Food instrument language to reflect WIC EBT card
- WIC EBT transaction procedures
- Vendor payments
- Participant identification
- Arizona WIC Program participant training requirements
- Cash register system enhancement reimbursement

4.3. Training

The Arizona WIC Program will create and maintain a training plan for all stakeholders including participants, vendors, Local Agency personnel, and State personnel. The Arizona WIC Program will work in conjunction with the WIC EBT Contractor and the HANDS DD&I Contractor to create a training plan to meet the needs of all stakeholders.

Sixteen other WIC State Agencies have implemented and completed a statewide rollout of WIC EBT. The Arizona WIC Program will leverage training contents and lessons learned from other WIC State Agencies and their respective approaches to provide stakeholders with the types of trainings and materials that meets their expectations in a timely matter. Additionally, the Arizona WIC Program will leverage the lessons learned from the recent successful HANDS rollout in the training and rollout approach.

4.3.1. Training Objectives

The main goal of the training plan is to ensure that all stakeholders understand the impacts of WIC EBT as it pertains to their daily activities. The activities described in the training plan will ensure that stakeholders feel comfortable with using the systems, whether HANDS, WIC EBT system, or the cash register system.

The Arizona WIC Program will present trainings in a positive, user-friendly format, accounting for various types of learning styles. The Arizona WIC Program will evaluate each training event by assessing the competence of the attendees following the training.

4.3.2. Training Personnel

The training personnel will consist of the HANDS DD&I Contractor, the WIC EBT Contractor, and the Arizona WIC Training Team. The HANDS DD&I Contractor will be responsible for training the Arizona WIC Training Team on HANDS system functionality. The WIC EBT Contractor will be responsible for training the Arizona WIC Training Team on WIC EBT system functionality. The Arizona WIC Training team will host "Train-the-Trainer" sessions to train Local Agency leadership and trainers. In turn, Local Agency leadership and trainers will train all clinic personnel. The HANDS DD&I Contractor and the WIC EBT Contractor will be available to provide in-person support to the train-the-trainer sessions as needed.

4.3.3. Training Audience

Participants, Local Agency personnel, vendors, and Arizona WIC Program personnel will receive training with varying content based on their role with WIC EBT. All participants, approximately 153,000, will require training on how to use their WIC EBT card at vendors to purchase WIC foods. Approximately 650 Local Agency personnel will receive formal training to issue food benefits and WIC EBT card in HANDS. All vendors will require training of how changes from food instrument to WIC EBT impacts transaction processing, settlement, and reconciliation. State personnel will require training in both HANDS and the WIC EBT system.

4.3.4. Types of Trainings

The training plan will guide the Arizona WIC Program in the development and implementation of training on WIC EBT, HANDS, and the WIC EBT system. Participants, vendors, and Arizona WIC Program and Local Agency personnel will be impacted in the change from food instruments to WIC EBT. The Arizona WIC Program will provide all stakeholders with all the necessary training and training materials to successfully transition from paper food instruments to WIC EBT.

Participants

The Arizona WIC Program will not formally train participants on changes with WIC EBT prior to pilot and statewide rollout; however will provide communications to participants that WIC EBT is coming to WIC clinics.

During pilot and statewide rollout, Local Agency personnel will educate participants about the differences between food instruments and WIC EBT. Local Agency personnel will explain how the shopping experience is different including:

- Using WIC EBT card and PIN to purchase WIC foods,
- Flexibility with purchasing WIC foods,
- Foods verified against the APL,
- Reading and understanding receipts,
- Obtaining food benefit balance, and
- Replacing lost or stolen WIC EBT card.

The Arizona WIC Program will provide participants with training materials to demonstrate how to use the WIC EBT card and how the shopping experience will change. The Arizona WIC Program will utilize the WIC EBT Contractor's expertise in creating participant training materials from other WIC State Agencies. At a minimum, the Arizona WIC Program will provide participants with the following training materials:

- Print Ready Brochure –Available in English and Spanish with training topics including:
 - Care of the WIC EBT card
 - Reporting and replacing lost, stolen or damaged cards
 - Account balance inquiry
 - How to use WIC EBT card at any vendor
- Video –an informational video to support participant training that can be played at any WIC clinic or the Arizona WIC Program website.

Vendors

Vendors will receive trainings based on their cash register system. Vendors with an integrated cash register system will receive training from VARs or their internal training personnel. Integrated cash registers are unique to each WIC vendor. The Arizona WIC Program does not have the knowledge to create training materials for vendors with integrated cash register systems. Vendors with integrated cash register systems will utilize VARs or internal personnel to create training materials. The Arizona WIC Program will review vendor training plans and materials, and provide recommendations if requested.

Vendors with a stand-beside solution will receive training from the WIC EBT Contractor. The WIC EBT Contractor will provide training that includes:

- Conducting a WIC EBT transaction,
- Settlement,
- Reconciliation, and

The WIC EBT Contractor will provide training materials to vendors with the stand-beside solution. Training materials will include content such as:

- Log on/log off,
- Conducting WIC EBT transactions, and
- Reporting.

Local Agency Personnel

Local Agency personnel will receive WIC EBT and HANDS system trainings. Local Agency personnel will have knowledge of WIC EBT to educate participants on the changes associated with transitioning from food instruments to WIC EBT.

The Arizona WIC Program will provide Local Agencies with training materials to educate personnel on changes with food benefit issuance and redemption. The training materials will serve to educate personnel, so they in turn can educate participants on how WIC EBT has changed their shopping experience. Training materials will minimally include the following topics:

- Using the WIC EBT card at the vendor POS,
- Interpreting the shopping list and receipt,
- Replacing lost/stolen cards,
- Changing food benefits, and
- Changing the participant PIN.

Local Agency personnel will receive trainings on HANDS system changes. The Arizona WIC Program will provide training materials with new HANDS functionality. Training materials will minimally include the following topics:

- Issuing participant food packages,
- Tailoring participant food benefits,
- Issuing a WIC EBT card,
- Linking the participant PIN to the WIC EBT card,
- Replacing participant benefits,
- Obtaining a WIC EBT card benefit balance, and
- Viewing family transaction history.

Arizona WIC Program Personnel

The Arizona WIC Program personnel will require HANDS and WIC EBT system training. The HANDS DD&I Contractor will lead training sessions for all functional areas impacted by new HANDS functionality. The HANDS DD&I Contractor will provide administrative and user manuals to support the trainings. Additionally, the HANDS DD&I Contractor will lead Train-the-Trainer sessions for the Arizona WIC Training Team for Local Agency level content.

The WIC EBT Contractor will provide end-to-end WIC EBT system training, from benefit issuance through voiding and expunging expired food benefits. The WIC EBT Contractor will lead training sessions for all Arizona WIC Program personnel, organized by functional area including:

- Training Team,
- Finance,
- Vendor management,
- Program operations,
- Service desk,
- Information technology,
- Research & development,
- Program integrity, and
- Quality assurance.

The WIC EBT Contractor will provide written training materials for State personnel. Training materials will cover the WIC EBT system functionality as it applies to specific job functions. The WIC EBT Contractor will provide and maintain the following instruction manuals:

- Administrative Functions Manual,
- Reports Manual,
- Settlement and Reconciliation Manual, and
- User's Manual for WIC personnel.

4.4. Hardware and Materials

4.4.1. Stand-beside Solution

WIC vendors that do not have an integrated electronic cash register system will require a stand-beside terminal to process WIC EBT transactions. The stand-beside terminal will include a computer based terminal, PIN selection terminal, and handheld scanner. The stand-beside terminal will require a high speed or dial-up internet connection to process transactions and settlement, and update the APL daily. The stand-beside solution includes the following components:

- Computer terminal – The WIC EBT transaction takes place at the terminal. The Arizona WIC Program plans to procure the VeriFone VX 520 terminal or the equivalent from the WIC EBT Contractor. The terminals feature a card reader, screen, keypad, and thermal printer.
- Barcode Scanner – The barcode scanner allows the cashier to scan the barcodes for all the WIC foods included in the WIC EBT transaction. The Arizona WIC Program plans to procure the Honeywell Adaptus 3800g barcode scanner or the equivalent from the WIC EBT Contractor. The barcode scanner interfaces with the terminal via USB.
- PIN Selection Terminal – The PIN selection terminal allows the participant to enter their PIN to approve the WIC EBT transaction. The Arizona WIC Program plans to procure the VeriFone PIN Pad 1000SE or the equivalent from the WIC EBT Contractor.

The Arizona WIC Program will provide the stand-beside solution to vendors at no cost. The WIC EBT Contractor will deliver and install the stand-beside solution, and provide the vendor with a stand-beside solution user manual and in-person training prior to statewide rollout.

4.4.2. Clinic PIN Selection Terminal

All WIC clinics require PIN Selection Terminals. The terminals allow participants to select a private four digit PIN that links to their WIC EBT card. The WIC EBT Contractor will procure and ship the VeriFone PIN Pad 1000SE or the equivalent to each Local Agency. The PIN selection terminal is a physically secure, tamper-resistant device that complies with International Standards Organization (ISO) and American National Standards Institute (ANSI) standards for PIN encryption, key management, and message authentication code.

The Arizona WIC Program will work with Local Agencies to determine the quantity of PIN Selection Terminals per WIC clinic. The PIN terminals interface with computers via USB. The PIN selection terminals require a software driver to integrate with the computer.

4.4.3. WIC EBT Cards

The WIC EBT card is a high coercivity magnetic stripe card that includes a 16 digit Personal Account Number (PAN). The WIC EBT cards will meet all WIC EBT Operating Rules, International Organization for Standardization (ISO) and American National Standards Institute (ANSI) standards as they relate to magnetic stripe cards used for financial transactions. The WIC EBT Contractor will ship the cards to the Local Agency/clinic and maintain the card number inventory within the WIC EBT System. The WIC EBT Contractor will automatically replenish WIC EBT cards when the inventory meets the minimum threshold.

4.4.4. Card Sleeves

Participants require a card sleeve to safely secure and store their WIC EBT card. The WIC EBT Contractor will procure custom card sleeves that meet the Arizona WIC Program requirements. The custom card sleeve resembles a small book, just larger than the WIC EBT card. The custom card sleeve contains space to secure the WIC EBT card and receipts, and includes pages that will include information such as participant's rights and responsibilities, future appointments, and how to use their WIC EBT card. Local Agencies will be able to order the custom card sleeves from the Arizona WIC Program or the WIC EBT Contractor.

4.5. Support Model

The Arizona WIC Program will provide stakeholders with customer service that meets the needs of all stakeholders. Stakeholders will have access to the WIC Service Desk, Participant and Vendor Customer Service Centers, and Participant and Vendor Web Portals. The support model leverages mobile technology to provide participants, vendors, Local Agency and State personnel with customer service options whether they are at home, work, doctor's office, or at the grocery store.

4.5.1. WIC Service Desk

The WIC Service Desk provides customer service support to the Arizona WIC Program and Local Agency personnel for all HANDS questions or problems. The WIC Service Desk is available by toll free phone number or email, Monday through Friday from 7am to 7pm and Saturday from 8am to 1pm. The WIC Service Desk provides State and Local Agency personnel support with the following:

- Scanner, Signature Pad, or PIN Terminal malfunctions,
- Participant certification,
- Food benefit issuance,
- HANDS outages, and
- Procedural questions.

4.5.2. Participant Phone Support

The WIC EBT Contractor will provide participants with phone support through the Participant Service Center (PSC) 24 hours per day, seven days per week. Participants can find the PSC phone number on the back of their WIC EBT card. When calling the PSC, participants will access the ARU for initial support and live customer support, if needed. The ARU will provide participants with secure access to the WIC EBT account to review and update information without speaking to a live person. The WIC EBT Contractor will provide and manage the Participant Service Center.

Automated Response Unit

When calling the Participant Service Center, participants will automatically access the ARU. The ARU is a series of scripted, automated prompts that allows participants to receive and update information without speaking to a Customer Service Representative (CSR). The ARU prompts will be available in both English and Spanish. The ARU will verify the participant's identity with a series of security questions. Participants will be able to:

- Obtain a current food balance,
- Review transaction history,
- Select or change their PIN,
- Report lost, stolen, or damaged WIC EBT cards, and
- Request to speak to a live customer service representative.

Live Customer Service

Participants may access live customer service after accessing the ARU. Live customer service will be available 24 hours per day, seven days per week, in English and Spanish, with translations services available for other languages. Participants may speak to a CSR to receive support for:

- Reporting lost/stolen cards,
- Changing their PIN,
- Transaction History,
- WIC EBT card malfunctioning, and
- Current food benefit disputes.

Vendor Telephone Support

Vendors utilizing integrated cash register systems will receive technical and settlement support from their cash register system provider and/or their third party processor. Vendors with a stand-beside solution will contact the Vendor Service Center (VSC) for technical or settlement assistance via a toll-free phone number 24 hours per day, seven days per week. The WIC EBT Contractor staffs and manages the VSC.

All calls will begin with the ARU and follow with a live customer service representative if needed. The VSC will support vendors for the following types of calls:

- Reported system outage,
- Support, training, and problem resolution on stand-beside solution equipment,
- Questions concerning settlement or reconciliation,
- General WIC EBT related inquiries, and
- Contract changes or questions.

Participant Web Portal

The Participant Web Portal will allow participants to review and update information without calling the PSC. The participant can access Participant Web Portal from any smart phone or computer. The Participant Web Portal will verify the participant's identity with the card number and PIN. The Participant Web Portal provides participants with ability to obtain a current food benefit balance, review transaction history, report lost or stolen cards, and change their PIN. The WIC EBT Contractor will provide and operate the Participant Web Portal.

Vendor Web Portal

The Vendor Web Portal will provide all vendors with secure access transaction history, settlement, and reconciliation information. Vendor Web Portal will verify the vendor's identity with the vendor ID number. The WIC EBT Contractor will provide and operate the Vendor Web Portal.

4.6. Pilot

The Arizona WIC Program will conduct the WIC EBT pilot in the Pinal County Casa Grande Clinic for three months. The Casa Grande WIC clinic services approximately 2,500 clients per month. The pilot site includes nearby vendors that include large grocery store chains and smaller independent grocery stores. As participants cannot use their WIC EBT card to purchase WIC foods from vendors outside of the pilot area, Casa Grande is an ideal pilot site as participants predominantly shop at the nearby vendors.

4.6.1. Pilot Training

The Arizona WIC Program will ensure that pilot clinic personnel and vendors receive required training to support WIC EBT. The Arizona WIC Training Team will lead the pilot clinic training. Training content will include HANDS system changes, food benefit changes related to WIC EBT, and WIC EBT transaction procedures. The Arizona WIC Program will schedule the pilot clinic training allowing personnel enough time to practice before pilot starts.

The WIC EBT Contractor will lead trainings for the pilot vendors with the stand-beside solutions. Training content will include transactions, settlement, and reconciliation procedures. Vendors with integrated cash register system will receive training from their cash register system provider, TPP, or internal training personnel.

4.6.2. Pilot Preparations

Prior to pilot, the Arizona WIC Program will ensure that all stakeholders are ready to support WIC EBT. The Arizona WIC Program will ensure that:

- The pilot clinic has all hardware, software, and materials required to issue participants WIC EBT cards,
- Pilot clinic personnel are trained to use HANDS,
- Participants are trained to use the WIC EBT card to shop at the vendor POS,
- Vendor's cash register systems can process online WIC EBT transactions, and
- Vendor's WIC food items are included in the UPC Database.

The Arizona WIC Program will host a Go/No Go meeting with all stakeholders to decide whether to pilot WIC EBT or delay the process.

4.6.3. Support

A successful WIC EBT pilot requires a successful benefit issuance and redemption experience. The Arizona WIC Program will provide on-site pilot support for the pilot clinic and vendors. The Arizona WIC Program personnel will provide clinic support will help both pilot clinic personnel and participants. The Arizona WIC Program will support pilot clinic personnel regarding HANDS system changes, while providing participants with support regarding their WIC EBT card and upcoming shopping experience.

The Arizona WIC Program personnel providing vendor support will support both cashiers and participants. The Arizona WIC Program can provide technical support to vendors using the stand-beside solution, but cannot assist vendors with an integrated cash register system. The Arizona WIC Program personnel will be able to answer vendor questions regarding WIC EBT transactions, settlement, and reconciliation. The Arizona WIC Program personnel will support Local Agency personnel and Local Agency personnel will provide participants with shopping assistance, such as interpreting WIC EBT food benefits and transaction questions.

The Arizona WIC Program will hold daily calls with onsite personnel, the HANDS DD&I Contractor, and the WIC EBT Contractor to discuss the successes and challenges. The Arizona WIC Program will document the issues and bugs, and work with the HANDS DD&I Contractor and/or the WIC EBT Contractor to resolve the issues.

4.6.4. Pilot Evaluation

Throughout pilot, The Arizona WIC Program will monitor benefit issuance, redemption, void, settlement, and reconciliation data for errors, validating that HANDS and WIC EBT systems communicate and exchange data properly. Throughout pilot, the Arizona WIC Program personnel will review issues and bugs, and work with the HANDS DD&I Contractor and WIC EBT Contractor to improve the customer experience. The Arizona WIC Program will measure pilot success by the following metrics:

- Customer service call volume,
- Bug/Issue Resolution %,
- HANDS/WIC EBT System interface validation,
- Daily and monthly settlement and reconciliation validation, and
- Successful food benefit redemptions at all pilot vendors

The Arizona WIC Program will submit a Pilot Evaluation Report to FNS for approval to move onto statewide rollout. Following pilot, the Arizona WIC Program will hold a meeting to discuss lessons learned during pilot. The Arizona WIC Program will apply the lessons learned to the upcoming statewide rollout.

4.7. Statewide Rollout

Following pilot, The Arizona WIC Program will roll out WIC EBT incrementally by Local Agency. The Arizona WIC Program will roll out WIC EBT as quickly as possible to minimize the time that vendors accept both food instruments and WIC EBT cards.

4.7.1. Training

The Arizona WIC Program will ensure that all clinic personnel and vendors receive required training to support WIC EBT. The Arizona WIC Training Team will be responsible for training all Local Agency personnel. The Arizona WIC Training Team will apply lessons learned from the pilot training to the statewide rollout trainings, including approach and materials. Training content will include HANDS system changes, food benefit changes related to WIC EBT, and WIC EBT transaction procedures.

The WIC EBT Contractor will lead trainings for the vendors with the stand-beside solutions. Training content will include transaction, settlement, and reconciliation procedures. Vendors with integrated cash register system will receive training from their cash register system provider, TPP, or internal training personnel.

4.7.2. Preparation

Prior to statewide rollout, the Arizona WIC Program will ensure that all stakeholders are ready to support WIC EBT. The Arizona WIC Program will ensure that:

- Each Local Agency has all hardware, software, and materials required to issue participants WIC EBT cards.
- Local Agency personnel are trained to use HANDS
- Participants are trained to use the WIC EBT card to shop at the vendor POS
- Vendor's cash register systems can process online WIC EBT transactions
- Vendor's WIC food items are included in the UPC Database

The Arizona WIC Program will host a Go/No Go meeting with all stakeholders and review pilot results and statewide rollout preparations to decide whether to continue with statewide rollout or delay the process.

4.7.3. Support

The Arizona WIC Program will provide on-site support for the clinic personnel and vendors during the WIC EBT rollout. The HANDS DD&I Contractor may provide additional on-site support during rollout to provide coverage for all WIC clinics and vendors.

During the WIC EBT rollout, the Arizona WIC Program will hold daily calls with onsite personnel, the HANDS DD&I Contractor, and the WIC EBT Contractor to discuss the successes and challenges with the statewide rollout. The Arizona WIC Program will document the issues and bugs, and work with the HANDS DD&I Contractor and/or the WIC EBT Contractor to resolve the issues. Following the statewide rollout, Local Agencies will contact the WIC Service Desk for all additional questions or problems.

4.7.4. Evaluation

The Arizona WIC Program will measure the success of the statewide rollout by the performance of the HANDS and WIC EBT systems. HANDS must support food instrument issuance, redemption, settlement, and reconciliation until statewide rollout is complete and existing food instruments have expired. The Arizona WIC Program will verify that the HANDS/WIC EBT system interface is functioning properly and data is communicating between both systems.

Throughout statewide rollout, the Arizona WIC Program personnel will review issues and bugs, and work with HANDS DD&I Contractor and WIC EBT Contractor to improve the customer experience. The Arizona WIC Program will measure statewide rollout success by the following metrics:

- Customer service call volume,
- Bug/Issue Resolution %,
- HANDS/WIC EBT System interface validation,
- Daily and monthly settlement and reconciliation validation, and
- Successful food benefit redemptions at all vendors.

4.8. Disaster Planning

The Arizona WIC Program will develop and maintain a Disaster Recovery Plan that encompasses HANDS and the WIC EBT system. The Disaster Recovery Plan will provide the Arizona WIC Program with assurances that during disaster scenarios, it will be able to provide stakeholders with normal services. The Arizona WIC Program will have strategies in place to ensure that HANDS and WIC EBT system have functionality in place to expedite and simplify food benefit issuance and redemption during disasters.

4.8.1. HANDS

The Arizona WIC Program has processes and procedures in place to ensure HANDS availability during disaster scenarios. Refer to the Existing Technology Environment, Section 1.2 for more information regarding the current HANDS Disaster Planning processes and procedures.

4.8.2. WIC EBT System

The WIC EBT Contractor will have process in place to support disaster scenarios that occur within HANDS infrastructure or their own infrastructure. The WIC EBT Contractor will lead JAD sessions with the Arizona WIC Program to determine disaster recovery requirements. Disaster recovery planning will focus on system availability planning and options, issuance procedures, system recovery options, post-disaster activities, communication plan, and timing.

Backup Capabilities

The WIC EBT Contractor maintains primary servers in a different geographical location than the backup site. The backup server automatically replicates transactions received by the primary servers. In the event of a disruption at the primary site, the WIC EBT Contractor will implement a failover process. The failover process switches all operations to servers at the backup site. The WIC EBT Contractor always keeps the servers at the backup site in sync with the primary site. When the failover process is complete, the WIC EBT system will operate normally.

The WIC EBT contractor will implement procedures that ensure prompt system recovery and restoration of services in the event of data loss or disruption of services. System recovery procedures will address the following:

- Loss of data requiring restoration of data from a backup source,
- Restoration of service in the event of a failure or disruption of service at the primary site, and
- Major network communication failure or disruptions.

Disaster Scenario WIC EBT System & Support Services

The Arizona WIC Program requires that the WIC EBT Contractor be prepared to implement a modified WIC EBT system in a disaster scenario to issue food benefits. During a disaster, if the Arizona WIC Program is unable to issue food benefits from HANDS, the WIC EBT system will be able to issue or re-issue benefits at the prior months benefit level to family accounts that were active the previous month and who do not have benefits in queue for issuance during the current month.

During disasters, the Arizona WIC Program requires that participants and vendors receive the same level of service as during non-disaster scenarios. In the event of a disaster, the WIC EBT Contractor will provide the same scope of services to participants and vendors for the ARU and live customer service. The ARU will have a specific Arizona WIC Program approved disaster script. As call volume will likely increase in a disaster scenario, the WIC EBT Contractor will provide additional CSRs to meet expected performance standards.

B. Existing Technology Environment*

1. Current HANDS Infrastructure

The HANDS application is a combination of highly redundant hardware as well as industry standard software stacks. The core of the WIC IT systems that hosts HANDS runs on VMware's vSphere Hypervisor which is recognized for both resiliently and flexibility.

Operating Systems:

The HANDS application is running on virtualized Microsoft 2008 R2 servers w/ Microsoft IIS v7.5. The Arizona WIC Program use Microsoft's Web Deploy framework to insure that the IIS Web Farm stays synchronized in both the primary and secondary Disaster Recovery sites.

Patch Management:

The Arizona WIC Program currently utilize Microsoft's SCCM (System Center) to patch the entire Window Server stack. Patches are staged in tiers starting with the sandbox environment then progressing though the QA, UAT, and Production servers, ensuring that patches are thoroughly vetted before reaching critical systems.

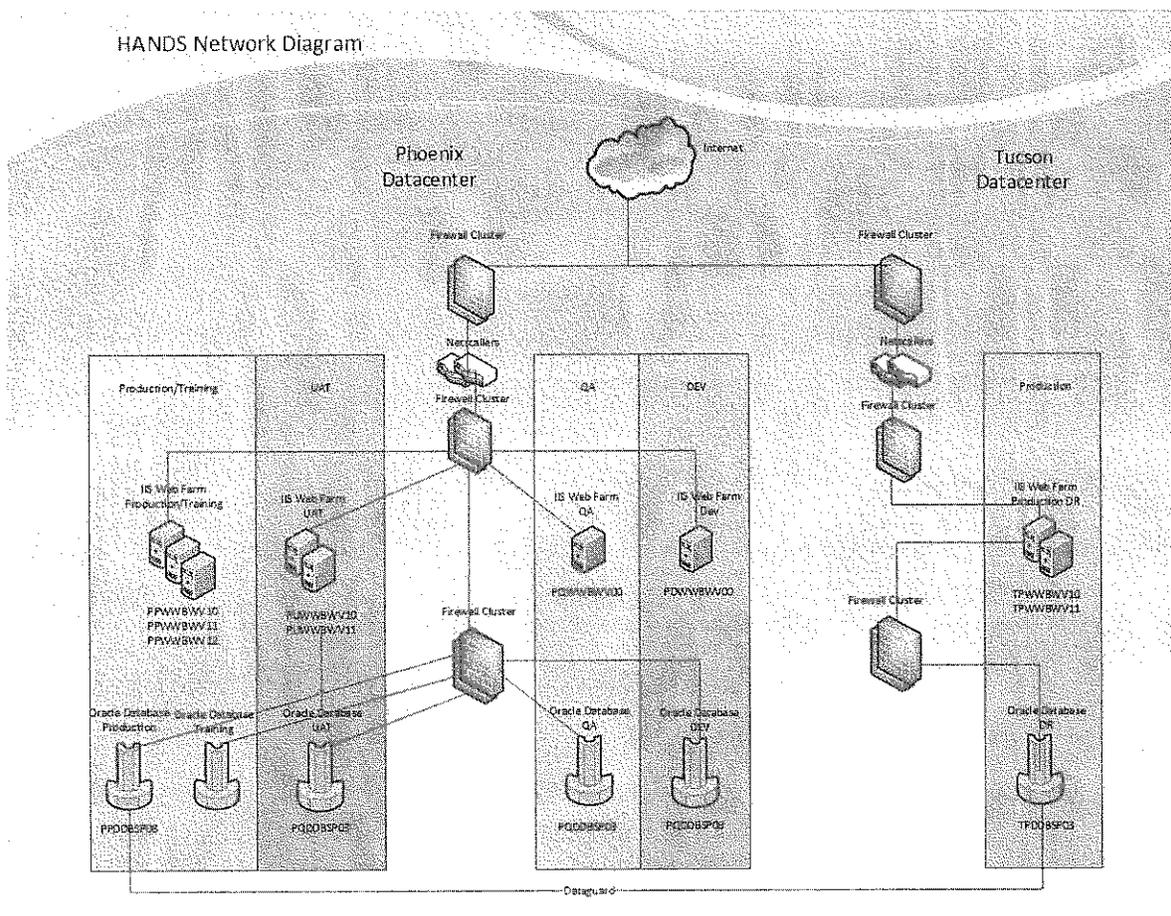
HANDS Source Code Repository:

The HANDS system's repository for development/production code is secured by TFS. TFS allows for branching of code, which enables developers to test, QA, and deploy updated HANDS code to the production Web Farm using Release Manager. Built in safe guards such as approval processes insure only authorized code is allowed to touch production systems.

Network:

The Arizona WIC Program follows the standardized network separation methodology, in which each core Virtual Local Area Network (VLAN) is separated and controlled by Access Control Lists (ACL's) to only allow required traffic to individual hosts. This method ensures that no unauthorized data transmissions are allowed without network software changes. Figure 6 is a visual illustration of the HANDS network diagram.

Figure 6 - HANDS Network Diagram



Virtualization:

The Arizona WIC Program utilize VMware’s vSphere clustering features such as distributed resource scheduler and high availability technologies to insure that the systems stay online. By separating the Internet Information System (IIS) Server Farm and core infrastructure services onto different ESXi hosts, the Arizona WIC Program protect the servers in the event of server hardware and software failures.

Backup Solutions:

The Arizona WIC Program uses Veeam for the VMware backup solution and Netbackup to protect the Solaris and physical server environments. In both scenarios, the Arizona WIC Program does cross datacenter backups and write to tape weekly. Tapes are shipped offsite on a weekly basis.

Storage Infrastructure:

The HANDS Storage Area Network (SAN) consists of a redundant pair of Brocade B300 Fiber Switches, Hitachi VSG400 storage array, and an IBM DS5020 storage array. The Arizona WIC Program follow best practice white papers from mentioned vendors to provide the highest level of redundancy and utilize the hardware to its fullest potential to provide maximum transmission speeds.

Database Servers:

The HANDS Database servers are Oracle T4-2 Servers running Solaris 11 utilizing zones (Virtualization), which run Oracle 12c for the HANDS Database. The Arizona WIC Program uses dual HBA's, NIC's, and redundant power.

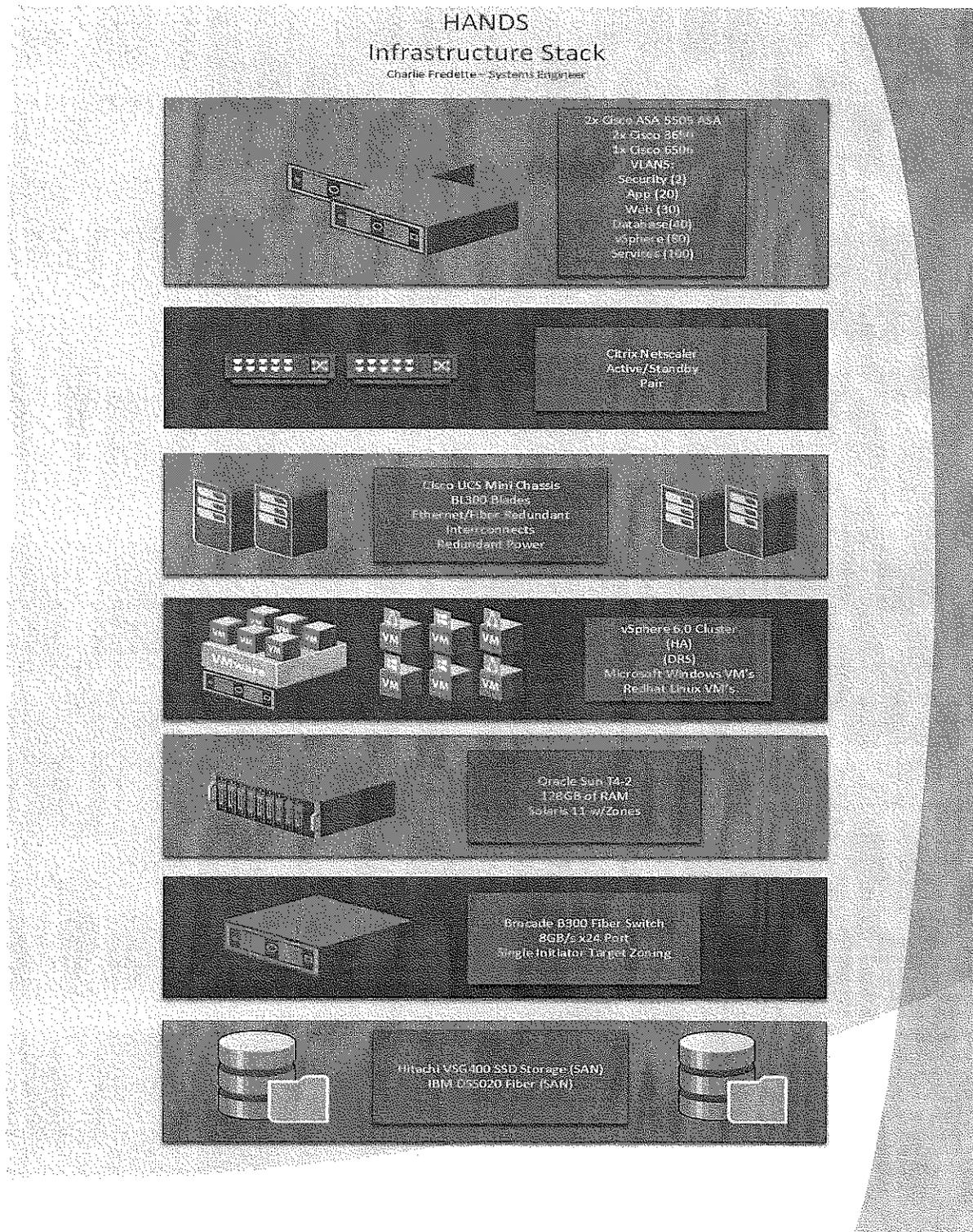
Physical Hardware and Software Summary:

The hardware the VMware Hypervisor uses is a Cisco UCS Mini Chassis which contains 4x Cisco B3xx Blade Servers. These servers comprise of 40x Intel Xeon CPU cores, 192GB of DDR3 ECC RAM, Dual Fiber/Ethernet interconnect cards and internal RAID SD Card Storage. A summary list is included below and Figure 7 includes a visual representation.

HOST ENVIRONMENT:

- Application Host OS: Microsoft Windows Server 2008 R2
- Server Hardware: Cisco UCS Mini (B300 Blades)
- Computing platform: Hardware Virtualization
- Hypervisor: VMware ESXi vSphere 6.0
- Database Servers Oracle Sun T4-2
- Database Software Oracle 12c
- User & Groups Management: Microsoft Active Directory
- Network 2x Cisco ASA 5505, 2x Cisco 3650, and 1x Cisco 6506
- Load Balancers Citrix Netscalers
- Backup Software Veeam & Netbackup
- Internet Information Services (IIS): Microsoft IIS 7.5
- Fiber Switches Brocade B300
- System Storage: Hitachi SSD VSG400 & IBM Fiber DS5020
- DNS: DynDNS

Figure 7 –HANDS Infrastructure Stack



1.1. HANDS Infrastructure Impact Analysis for WIC EBT

Infrastructure impact from the implementation of the WIC EBT system is minimal. Since the HANDS/WIC EBT system interface only affects the application layer of the HANDS application, underlying hardware and infrastructure software will only have minimal change. New servers or storage may have to be provisioned and presented to allow for greater growth and flexibility during different stages of the WIC EBT project lifecycle. Depending on the WIC EBT Contractor requirements, network firewall ACL's/Tunnels may have to be created to ensure secure bi-directional communication.

1.2. Disaster Recovery (DR) Model

The HANDS hardware systems are not only redundant in the event of a hardware failure but also hosts a secondary site that consists of the DR model. The Arizona WIC Program use the following technologies to facilitate a DR scenario as detailed in Figure 8.

DynDNS:

The HANDS application utilizes a service called Dynamic DNS that eliminates the need for secondary URLs in a DR Failover scenario. This service also provides active health monitoring that help the IT team identify outages or issues from a tertiary site. Because of the low 30 second Time to Live (TTL), this allows for almost instantaneous change from primary IP to secondary IP (A Records) to facilitate a DR Failover.

Citrix NetScaler:

Citrix NetScalers are hardware devices that preform the following activities:

- SSL offloading,
- Centralized SSL certificate store, and
- Load balancing to the HANDS IIS 7.5 server farm that hosts the HANDS application.

Microsoft IIS 7.5 Server Farm

The HANDS application runs on Microsoft IIS v7.5. We utilize Microsoft's Web Deploy Framework for the central management of the server farm. This framework allows for a single primary master server, which then replicates to all other servers in the Primary Datacenter and the Secondary DR Datacenter.

Oracle Replication

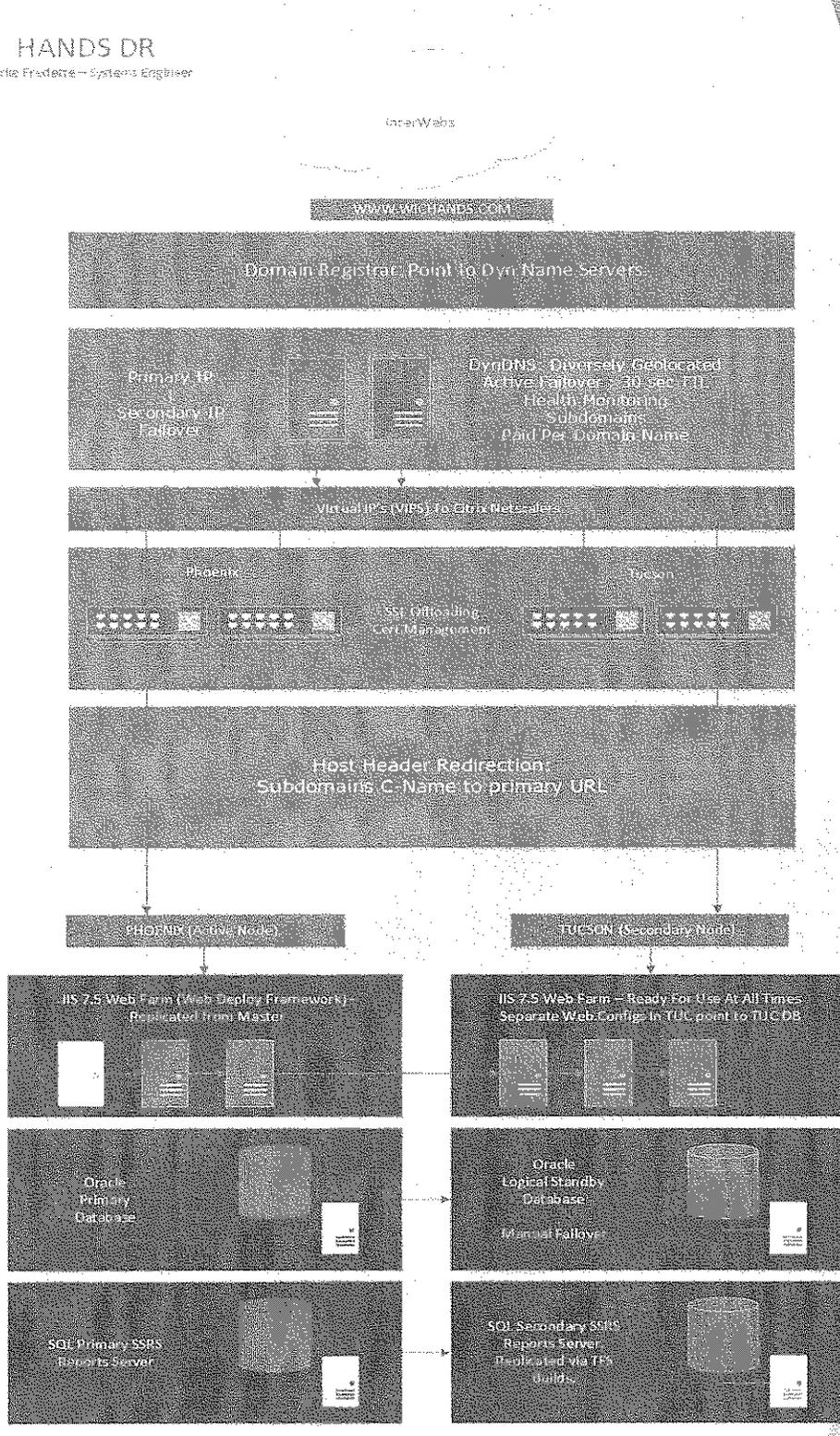
HANDS utilizes built in Oracle Data Guard for DR Database synchronizing. The Arizona WIC Program replicate the primary HANDS database by creating a physical standby server in the DR Datacenter and the Arizona WIC Program maintains synchronization with log shipping.

SQL SSRS Replication

SSRS is the Microsoft reporting tool the Arizona WIC Program uses to present canned reports to the Local Agency personnel. In the event of a DR Failover scenario, the Arizona WIC Program synchronizes these servers as part of the TFS build release cycle. Updated HANDS reports are deployed to both primary and secondary SSRS servers.

Figure 8 - HANDS Disaster Recovery Model

HANDS DR
 Charlie Fredette - Systems Engineer



C. Selection Process*

1. Alternatives Analysis

The Arizona WIC Program conducted a thorough analysis of the WIC EBT alternatives as outlined in the Feasibility Study previously submitted to the Western Region Office (WRO). The Feasibility Study for the Arizona WIC Program was completed during the EBT planning phase of the project, as required by FNS. The Feasibility Study included an alternatives analysis and cost analysis for the available WIC EBT technologies, online and offline and make vs. buy options. The Arizona WIC Program evaluated the options of building and host an in-house WIC EBT system or outsourcing a hosted WIC EBT system. The Arizona WIC Program carefully considered In-house WIC EBT processing early in the planning process but rejected it due to its current capabilities, inability to secure additional resources and the lack of political will to operate and maintain a WIC EBT system.

1.1. Alternative 1 – Online WIC EBT

Alternative 1 will replace paper food instruments with online WIC EBT. The implementation costs were estimated using a bottom-up approach from previous online WIC EBT implementations in other WIC State Agencies. The online WIC EBT implementation estimated implementation costs for online WIC EBT are \$3,301,804.

The high-level implementation cost components included:

- HANDS system enhancements
- WIC EBT system integration
- QA services
- Vendor cash register system upgrades
- Local Agency hardware and materials

The operating costs were estimated based on a five-year contract with 8-month development period and 40-month operation period. The estimated online WIC EBT operating costs over the 40-month period was \$3,926,900.

The online WIC EBT operating cost components included:

- WIC EBT cards
- Transaction processing
- Settlement and reconciliation services,
- Vendor and Participant help desk support

1.2. Alternative 2 – Offline WIC EBT with a Smart Card

Alternative 2 will replace paper food instruments with offline WIC EBT. The implementation costs were estimated using a bottom-up approach from previous offline WIC EBT implementations in other WIC State Agencies. The estimated development costs for online are WIC EBT \$3,466,212.

The high-level implementation cost components included:

- HANDS system enhancements
- WIC EBT system integration
- QA services
- Vendor cash register system upgrades
- Local Agency hardware and materials

The operating costs were estimated based on a five-year contract with 8-month development period and 40-month operation period. The estimated offline WIC EBT operating costs over the 40-month period was \$4,314,155.

The online WIC EBT operating cost components included:

- WIC EBT cards
- Transaction processing
- Settlement and reconciliation services,
- Vendor and Participant help desk support

1.3. Alternative 3 - Do Nothing – Continue to Issue Paper Food Instruments

Alternative 3 continues current operations and not implement WIC EBT. The Do Nothing option has zero development costs. However, the Arizona WIC Program would not comply with Healthy Hunger Free Kids Act of 2010 to implement WIC EBT by October 2020.

The operating costs were estimated based on a five-year contract with 8-month development period and 40-month operation period. Alternative 3 estimated operating costs over the 40 month period was \$5,762,057.

The operating cost components associated with Alternative 3 include:

- MICR toner
- WIC ID folders
- Paper food instruments
- MICR printer maintenance

2. Alternative Selection

Implementation costs for both WIC EBT technology options were very similar, within \$170,000 of either option. FNS provided grant funds to support MIS/WIC EBT project every year that would cover all development costs. When compared to the third option, do nothing, Alternative 1 provided an estimated \$1,835,157 operating cost savings over the 40-month post-implementation period and Alternative 2 provided an estimated cost \$1,447,902 operating cost savings over the same period.

From a development and operating cost perspective, both Alternative 1 and Alternative 2 were both affordable and the Arizona WIC Program was in a position to select whichever WIC EBT technology that provided stakeholders with the most benefits. The Arizona WIC Program utilized a stakeholder evaluation tool and vendor technology survey to select between Alternative 1 and Alternative 2. Ultimately, the Arizona WIC Program selected Alternative 1 – as both the evaluation criteria and the vendor survey results favored online WIC EBT.

2.1. Evaluation Tool

The Arizona WIC Program created an evaluation tool that detailed the benefits and challenges of online and offline WIC EBT technology for each stakeholder: participants, vendors, Local Agencies, and the Arizona WIC Program. The Arizona WIC Program completed the evaluation tool from each stakeholder’s perspective. The evaluation tool favored online WIC EBT for all stakeholders as detailed in Figures 9 -12.

Figure 9 - Evaluation Tool - Participant Criteria

Number	Participant Criteria	Importance Weight 0 - 5	Arizona			
			Score		Weighted Score	
			Offline	Online	Offline	Online
1	Access to account balance	5	3	5	15	25
2	Food package changes	5	3	5	15	25
3	Obtain replacement card & benefits	4	2	5	8	20
4	Completion of purchase at retailer POS in rural areas with poor telecommunications or network outage.	5	5	2	25	10
5	Benefit security	1	4	3	4	3
6	Disaster scenario - benefit issuance	5	1	5	5	25
7	Disaster scenario - benefit redemption	5	4	3	20	15
8	Mixed basket transactions	4	4	4	16	16
9	Voiding transactions	3	0	3	0	9
10	Access to benefits if card is damaged	4	2	5	8	20
11	PIN change	5	2	5	10	25
Total					116	168

Figure 10 - Evaluation Tool - Vendor Criteria

Number	WIC Vendor Criteria	Importance Weight 0 - 5	Arizona			
			Score		Weighted Score	
			Offline	Online	Offline	Online
1	Third party processor fees	5	5	3	25	15
2	Risk of completing an EBT transaction from lost or stolen card	3	3	5	9	15
3	Mixed basket transactions	4	4	4	16	16
4	Voiding transactions	4	0	3	0	12
5	Ability to process transactions in rural areas with poor telecommunications and network outages	5	5	3	25	15
6	Cost of EBT equipment - post rollout	5	2	5	10	25
7	Reconciliation process	4	3	5	12	20
8	Payment settlement time	5	3	5	15	25
9	Retailer Point of Sale having current Approved Product List	5	3	3	15	15
10	Retailer Point of Sale having current Not to Exceed prices and adjustments made to transactions	5	3	5	15	25
Total					142	183

Figure 11 - Evaluation Tool - Local Agency Criteria

Number	Local Agency Criteria	Importance Weight 0 - 5	Arizona			
			Score		Weighted Score	
			Offline	Online	Offline	Online
1	Updating Food Package Remotely	5	0	5	0	25
2	Benefit Issuance Work Flow	4	3	3	12	12
3	PIN Selection and change	4	3	5	12	20
4	Card Replacement	5	2	5	10	25
Total					34	82

Figure 12 - Evaluation Tool - State Agency Criteria

Number	State Agency Criteria	Importance Weight 0 - 5	Arizona			
			Score		Weighted Score	
			Offline	Online	Offline	Online
1	State's implementation cost	5	3	4	15	20
2	Vendor payment settlement time	4	3	5	12	20
3	Disaster scenario - benefit issuance	4	1	5	4	20
4	Disaster scenario - benefit redemption	2	4	3	8	6
5	Approved Product List (APL)	2	3	3	6	6
6	EBT processors - full range of services & experience	4	2	5	8	20
7	Replacement card cost	4	3	5	12	20
8	Implementing same EBT technology as neighboring state(s)	2	3	3	6	6
9	Cost of stand-beside terminals	4	3	5	12	20
10	Benefit security	3	5	4	15	12
Total					98	150

2.2. Vendor Survey

The Arizona WIC Program sent a survey to all vendors requesting their WIC EBT technology preference, whether online, offline, or no preference (See Figure 13). The Arizona WIC Program received responses from 670 stores. Grocery chains submitted one response, but that response represented multiple stores. 48.21% of stores preferred online WIC EBT while only 11.04% of stores preferred offline WIC EBT. The Arizona WIC Program concluded that by combining the vendors that prefer online (48.21%) with vendors with no preference (40.75) for 88.96% of vendors would support online WIC EBT technology.

Figure 13- Vendor WIC EBT Technology Survey Results

Preference	Store Count	Percentage
Online	323	48.21%
Offline	74	11.04%
No Preference	273	40.75%
Total	670	100.00%

3. WIC EBT Contractor Selection Process

After the WIC EBT technology decision, the Arizona WIC Program developed the EBT Online Implementation and Processing Services RFP. ADHS Procurement released the Online EBT Implementation and Processing Services RFP on May 1, 2015 and closed on August 25, 2015. The Arizona WIC Program formed a diverse evaluation team to evaluate the bidder proposals. The evaluation team consisted of seven members from different functional areas including WIC director, project management, information technology, finance, program integrity, accounting, and a Local Agency.

3.1. Selection Criteria

The evaluation team assessed the proposals based on three criteria, in order of importance: experience and expertise, method of approach, and cost. All bidders started with the maximum total points with the evaluation team assigning point deductions for deficiencies and weaknesses. A deficiency is a material failure of a proposal to meet a solicitation requirement or a flaw that increases the risk of unsuccessful contract performance. A weakness is a flaw in a proposal that may increase the risk of unsuccessful contract performance. The Evaluation team based point deductions on proposal requirements from the Online EBT Implementation & Processing Services RFP Special Instructions. The evaluation team selected the bidder with the most overall points from the experience and expertise, method of approach and cost selection criteria as the contractor for the Online EBT Implementation and Processing Services RFP.

3.2. Experience and Expertise

The Arizona WIC Program detailed the bidder company and proposed personnel experience and expertise requirements within pages 181 – 183 of the Special Instructions in Attachment 3 – Online EBT Implementation and Processing Services RFP. Bidders must prepare a narrative that addresses all experience and expertise requirements within the RFP Special Instructions.

3.3. Method of Approach

The Arizona WIC Program detailed the Method of Approach requirements within pages 183 – 187 of the Special Instructions in Attachment 3 – Online EBT Implementation and Processing Services RFP. The evaluation team assessed the bidder's written narrative for all required content and the ability of the narrative to complete all requirements within the scope of work.

3.4. Cost

Bidders were required to complete the pricing tab within Procure AZ. The evaluation team assessed the Bidders prices on implementation, operating, hardware, and labor rate prices. The Arizona WIC Program assigned point values to each price line that varied between implementation, operating, hardware and labor rate pricing. The Evaluation Team scored each individual price line, the bidder with the lowest price received all points, while the other bidder received a fraction of the maximum available points determined by the ratio of lowest price divided by highest price.

IV. Project Approach

A. *Project Schedule**

Project Start Date: 5/1/2015 Project End Date: 9/19/2017

B. *Project Milestones**

Major Milestones	Start Date	Finish Date
HANDS JAD Sessions	1/20/2016	4/25/2016
ITAC Approval	2/3/2016	2/3/2016
USDA Contracts Approval	3/1/2016	3/1/2016
Project Kickoff Meeting	4/11/2016	4/15/2016
Integrated Vendor Certifications	4/11/2016	7/31/2017
WIC EBT System JAD Sessions	4/18/2016	5/25/2016
HANDS Development Complete	10/31/2016	10/31/2016
HANDS UAT	11/1/2016	12/30/2016
Systems Integration Testing	1/2/2017	3/8/2017
Pilot	3/15/2017	6/6/2017
Statewide Rollout	7/26/2017	9/19/2017

C. *Project Roles and Responsibilities**

1. Roles of State Offices

The Bureau of Nutrition and Physical Activity (BNPA) Arizona WIC Bureau Chief, and the ADHS Information Technology Application Services Manager hold primary responsibility for the oversight of this project.

The WIC EBT Program Project Manager and the WIC EBT IT Project Manager share project management responsibility of the WIC EBT implementation.

The Arizona WIC Program State Agency Personnel and Local Agency WIC Personnel will be part of the HANDS and WIC EBT system JAD sessions and pilot implementation process.

The State of Arizona entities that will participate in the WIC EBT system implementation:

- ADHS Information Technology Services - ADHS IT is responsible for coordination of all information system activities for the Arizona WIC Program. ADHS IT will work with the BNPA to facilitate resolution of WIC Program IT issues.
- Financial Office- Accounting and other fiscal personnel will provide support and controls to ensure integrity of the financial management of the project.
- Attorney General's Office- This office reviews and approves the content and monitors all contracts through the procurement office to ensure compliance with Arizona State Statutes and operations meet the requirements of the State of Arizona.
- Grants Management- the Central Budget Office will review all grant documents, give the program the authority to proceed, and monitor the progress of the project.
- Arizona Strategic Enterprise Technology (ASET) - ASET will provide strategic oversight and monitoring.

- Arizona WIC Program State Agency personnel and Local Agency WIC personnel- The Arizona WIC Program State Agency Personnel will provide SME throughout HANDS and WIC EBT system design and development. The local agency WIC personnel are the primary users of the updated HANDS system and WIC EBT food benefit issuance.

1.1. Key Resources and Project Responsibilities

The key resources are documented within Attachment B – WIC EBT Project Chart.

Project Governance

- ASET
 - Responsible for monitoring and overseeing technology projects across all state agencies and managing large, state-wide programs and initiatives and
 - Provides strategic oversight and monitoring.
- USDA FNS
 - Provides oversight in policy & procedure, budget, scope, and schedule changes,
 - Approves the Arizona WIC Program outputs and documentation to start UAT, pilot and statewide rollout, and
 - Monitors HANDS and WIC EBT systems to ensure they meet federal regulations.

ADHS Steering Committee

- Comprised of the following members:
 - Deputy Director of Planning and Operations
 - Assistant Director of Public Health Prevention Services
 - Assistant Director/Chief Financial Officer
 - Assistant Director/Chief Information Officer
 - Assistant Director of Policy & Intergovernmental Affairs
- Guides the Arizona WIC Program through implementation and ensures project meets the goals,
- Assists with issue resolution, and
- Meet regularly to ensure the EBT implementation meets the needs of Arizona WIC Program and Local Agencies.

Project Oversight

- Information Technology Application Services Manager
 - Responsible for the overall management of the project and communication with all Local Agencies and stakeholders,
 - Responsible for overseeing all aspects of the WIC EBT implementation,
 - Provide oversight of entire project and contracts,
 - Make personnel and strategic planning decisions,
 - Monitor project progress,
 - Oversee and approve project plans,
 - Provide direction for project,
 - Ensure all deliverables, and
 - Provide project status reports to Arizona WIC program, USDA, and ASET.

- BNPA Bureau Chief/Arizona WIC Director
 - Provide oversight of entire project,
 - Monitor project progress,
 - Approve project plans,
 - Provide direction for project, and
 - Maintain fiscal controls.

Stakeholders

- Local Agencies
 - Provides oversight to Local Agency specific deliverables,
 - Train personnel to use HANDS to issue WIC EBT benefits, and
 - Train participants on how to use WIC EBT card to purchase WIC foods.
- Vendors
 - Provides oversight to vendor specific deliverables,
 - Update and certify integrated cash register system to process WIC EBT transactions, and
 - Train personnel to process WIC EBT transactions.

Project Management

- Program Project Manager
 - Responsible for managing project specific activities within the WIC EBT implementation,
 - Dedicated to the project 75% of the time,
 - Facilitates project management within WIC operations,
 - Conducts JAD sessions with operations personnel and gathers HANDS and WIC EBT system functionality requirements and priorities,
 - Reports project status to the Arizona WIC Program,
 - Facilitate communication from program team members to IT WIC personnel and contractors,
 - Assist in the oversight of contractor deliverables and activities, and
 - Facilitates communications with USDA.
- IT Project Manager
 - Responsible for managing the WIC EBT implementation,
 - Responsible for the day-to-day information technology activities,
 - Dedicated to the project 100% of the time,
 - Plan, execute, and finalize the project according to strict deadlines and within budget,
 - Acquires resources and coordinates efforts of team members and third-party contactors or consultants,
 - Creates project schedules,
 - Controls the project's objectives,
 - Plan, organize, and integrate cross-functional project teams to deliver specific measured results,
 - Tasks Arizona WIC Program personnel, HANDS DD&I Contractor, and WIC EBT Contractor with work related to the WIC EBT implementation project,
 - Assist the HANDS DD&I Contractor and WIC EBT Contractor in adhering to State technical standards,
 - Assist in the oversight of contractor deliverables and activities,
 - Generate Project Status reports, and
 - Monitors contractors budget, scope, and schedule meet contract requirements.

Program Personnel

- Finance Manager
 - Provides project expenditures to support USDA and ASET reporting,
 - Manages the Vendor Management Team, and
 - Responsible for financial reports to USDA.
- WIC Training Manager
 - Trains Arizona WIC Program and Local Agency personnel on the HANDS application,
 - In collaboration with the HANDS DD&I Contractor and the WIC EBT Contractor, develops training materials for HANDS and the WIC EBT system, and
 - Creates participant training materials for using WIC EBT card.
- WIC Vendor Manager
 - Manages the Vendor Management team,
 - Trains vendors on current policies,
 - Maintains and updates the vendor manual and contracts,
 - Oversees vendor POS integration to support WIC EBT transactions, and
 - Oversees communication with vendors.
- WIC Program Integrity Manager
 - Manages the Program Integrity team,
 - Provides oversight in Policy & Procedure changes,
 - Provides oversight in vendor manual and contract changes,
 - Oversees Local Agency and vendor policy compliance, and
 - Conducts fraud investigations.
- WIC Food Package Specialist
 - Rebuild food packages to support WIC EBT food benefit issuance,
 - Leads the Food List Committee, and
 - Approves or denies foods to be included in the UPC Database.

Contractors

- HANDS DD&I Contractor
 - Lead JAD sessions with Arizona WIC Program personnel and develop BRDs,
 - Design and develop HANDS system to support WIC EBT benefit issuance, redemption, settlement and reconciliation,
 - Provide documentation that allows Arizona WIC Program to train Local Agency personnel on HANDS changes, and
 - Provide support for HANDS UAT, pilot, and statewide rollout.
- WIC EBT Contractor
 - Conducts JAD sessions with Arizona WIC Program personnel to determine if additional functionality is required,
 - Provides development environment that allows the Arizona WIC Program and vendors to test their systems,
 - Hosts WIC EBT system for WIC EBT transaction processing,
 - Provides and manages Participant and Vendor Customer Service Center, and
 - Procure Local Agency and vendor hardware and materials to support WIC EBT benefit issuance and redemption.

- QA Contractor
 - Provides project oversight utilizing from previous WIC EBT implementations in other states,
 - Independently reviews and verifies HANDS DD&I Contractor, WIC EBT Contractor, and Arizona WIC Program work products, and
 - Provide in-person support for systems integration testing, pilot, and statewide rollout.

IT Personnel

- MIS QA Manager
 - Oversight of all QA activities including that of the HANDS DD&I Contractor, WIC EBT Contractor, QA Contractor, and Arizona WIC program,
 - Coordinate scheduling, participation in and oversight of UAT, rollout and implementation activities,
 - Assists the HANDS DD&I Contractor and WIC EBT Contractor with providing technical assistance to State and Local Agency personnel throughout testing and implementation of the system,
 - Provides configuration management support to developers,
 - Manages bug\defect resolution procedures, and
 - Ensures that all test scenarios are linked to requirements within Microsoft Team Foundation Server (TFS).
- WIC Lead Developer
 - Ensures developers follow source control policies and procedures,
 - Manages build procedures and ensures release management,
 - Provides guidance on web application programming and design standards,
 - Reviews application specifications from WIC application contractors and provides suggestion, and
 - Performs code review.
- Systems/Network Manager
 - Manages daily operations of WIC technical personnel,
 - Organizes workflow and troubleshooting procedures provides technical guidance and expertise assistance to Arizona WIC Program and Local Agencies responsible for the HANDS architecture,
 - Assist the HANDS DD&I Contractor and WIC EBT Contractor with addressing telecommunication and network issues during testing activities, and
 - Assist the HANDS DD&I Contractor and WIC EBT Contractor with interface of HANDS to the WIC EBT system.
- WIC Systems Engineer
 - Manages physical IT infrastructure such as the WIC datacenters and rack environment,
 - Provides HANDS application, network, and desktop support, and
 - Supports HANDS interface to the WIC EBT system.

- WIC Unix & Network Administrator
 - Manages Arizona WIC Program network systems,
 - Coordinates and implements WIC network configuration changes,
 - Provides guidance on WIC network architecture and administration to Arizona WIC Program and Local Agencies,
 - Provides network guidance and expert assistance in areas of planning and troubleshooting to Arizona WIC Program and Local Agencies,
 - Manages security devices and access for all WIC networks,
 - Designs, implements, and administers WIC UNIX server environments, and
 - Responsible for managing WIC backup solution for HANDS system.
- WIC Service Desk
 - Provides Arizona WIC Program and Local Agency personnel with daily HANDS system software and hardware end user support,
 - Escalates, routes, and monitors HANDS system issues while providing end users with updates, and
 - Provides documentation on HANDS help desk issues such as statistics, call flow, and resolution time.

V. Risk Matrix, Areas of Impact, Itemized List, PIJ Financials



Project Investment
Justification

A. PIJ Financials

**ADOA-ASET - Arizona Strategic Enterprise Technology
Project Investment Justification - Financials**

Project ID: To Be Provided by ADOA-ASET

Date Accepted: To Be Provided by ADOA-ASET

Project Information

Agency Name	ADOA	Project Name	Web Electronic Request Transfer (eWET)	Date Submitted	17/7/15
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PIJ Development & Operational Cost Summary

Description	Type	Year (FY)					Deferred Cost
		Year 1 (FY16)	Year 2 (FY17)	Year 3 (FY18)	Year 4 (FY19)	Year 5 (FY20)	
Professional & Outside Services	Development	\$1,396,378 - \$1,539,243	\$0,905,588 - \$9,541,724	\$1,085,806 - \$1,181,839		\$15,765,572,544	\$5,404,988 - \$6,085,739
	Operational		\$415,328	\$850,656	\$850,656	\$850,656	\$4,768,525
Hardware	Development	\$227,562					\$227,562
	Operational				\$21,888	\$21,888	\$63,514
Software	Development	\$48,000					\$48,000
	Operational						\$0
Communications	Development						\$0
	Operational						\$0
Facilities	Development						\$0
	Operational						\$0
Licensing & Maintenance Fees	Development	\$10,000					\$10,000
	Operational						\$0
Other	Development	\$42,223					\$42,223
	Operational	\$115,000					\$115,000
Development Total Cost:		\$1,778,261 - \$1,670,656	\$9,217,252 - \$9,653,457	\$1,085,806 - \$1,181,839	\$0	\$15,765,572,544	\$5,088,804 - \$5,779,205
Operational Cost:		\$415,328	\$229,428	\$850,656	\$850,656	\$850,656	\$4,240,528
Total Cost:		\$2,244,761 - \$2,106,031	\$9,446,680 - \$9,882,885	\$1,936,462 - \$2,032,495	\$850,656	\$16,616,228,090	\$9,329,332 - \$10,019,733

Project Funding (add sources as appropriate)

Funding Source Category	Fund Name	Development Budget (\$)		Operational Budget (\$)		Total (\$)
		Currently Available	New Request	Currently Available	New Request	
General Funds						\$0
Federal Funds	MIC TRT Technology Grant, WIC Operational Adjustment Grant, WIC NSA	\$6,040,004 - \$6,720,445	\$0	\$3,330,530	\$0	\$9,370,534 - \$10,050,884
Other Appropriated Funds						\$0
Other Non-Appropriated Funds						\$0
Total Funding		\$6,040,004 - \$6,720,445	\$0	\$3,330,530	\$0	\$9,370,534 - \$10,050,884

B. Itemized List

**ADOA-ASET - Arizona Strategic Enterprise Technology
Project Investment Justification - Itemized List**

Project ID:

Date Accepted:

Project Information

Project Name	Agency Name	Date Submitted
WIC Electronic Benefit Transfer (eWIC)	ADHS	12/22/15

Project Cost - Itemized

Item	Description	Category	Development or Operational	Qty or Hours	Unit Cost	Tax (if app)	Extended Cost
1	WIC EBT System Design, Development & Implementation	Prof & Outside Services	Development	1	\$1,432,059 - \$2,112,500		\$1,432,059 - \$2,112,500
2	HANDS Design, Development & Implementation	Prof & Outside Services	Development	1	\$3,616,510		\$3,616,510
3	Quality Assurance Oversight Services	Prof & Outside Services	Development	1	\$276,779		\$276,779
4	WIC EBT Card Design Services	Prof & Outside Services	Development	1	\$3,490		\$3,490
5	UPC Collection Software Implementation	Prof & Outside Services	Development	1	\$56,120		\$56,120
6	WIC EBT System Third Party Audit	Prof & Outside Services	Development	1	\$20,000		\$20,000
7	UPC Collection Software	Software	Development	1	\$48,000		\$48,000
8	Clinic PIN Terminals, WIC Vendor Stand-Beside Solutions, and iPads	Hardware	Development	1	\$227,560		\$227,560
9	UPC Collection Software Licensing	License & Maint Fees	Development	1	\$9,600		\$9,600
10	EBT Card Number Registration - Issuer Identification Number	License & Maint Fees	Development	1	\$1,000		\$1,000
11	Integrated Vendor Software Development	Other	Development	1	\$276,000		\$276,000
12	Travel	Other	Development	1	\$71,446		\$71,446
13	Printing Services	Other	Development	1	\$9,500		\$9,500
14	WIC EBT System Operations	Prof & Outside Services	Operational	1	\$2,496,000		\$2,496,000
15	Clinic PIN Terminals and Stand-Beside Solutions Replacements	Hardware	Operational	1	\$65,514		\$65,514
16	UPC Collection Software Licensing	License & Maint Fees	Operational	4	\$9,600		\$38,400
17	Custom Card Sleeves	Other	Operational	460000	\$1		\$460,000

Total of Development Cost \$6,048,004 - \$6,728,445
 Total of Operational Cost \$3,059,914
 Total Itemization of Costs: \$9,378,543 - \$10,058,984

C. Risk Matrix

**ADOA-ASET - Arizona Strategic Enterprise Technology
Project Investment Justification - Risk Matrix**

Project ID: To Be Provided by ADOA-ASET Date Accepted: To be Provided by ADOA-ASET

Project Information

Agency Name	Project Name	Date Submitted
ADHS	WIC Electronic Benefit Transfer (eWIC)	12/22/16

Project Questions	Agency Response (Y/N)
Does the project involve customized software not previously implemented by your agency?	Y
Does the project involve a customized application not previously developed by your agency?	Y
Does the project involve any technology that is new and/or unfamiliar to your agency?	Y
Does the project involve multi-agency and/or multiple vendor coordination?	Y
Is there any possibility that project implementation costs could reach \$1 million or more? (Include professional services, hardware, software, license fees, taxes, shipping, etc.)	Y
Will the project require that a Request for Proposal (RFP) be issued?	Y
Are there any known schedule or budget constraints?	Y
Does this system interface among 2 or more applications?	Y
Will the implementation involve major end user view or functionality changes?	Y
Will the implementation require any physical infrastructure improvements, e.g., building reconstruction, etc.?	N
Are there other high risk project items not identified? If so, please explain below:	N
Does the project fall into one of the following categories: - hardware technology refresh, e.g., PCs, laptops, radios, peripherals, etc.? - software version refresh, e.g., MS Office 2010 replacing 2007? - enhancements to an existing application, e.g., web app, internal system?	Y
Will the technology and all required services be acquired off existing State contract(s)?	N
Does the project have the correct skillset and number of in-house resources assigned to meet the objectives?	Y
Will a dedicated Project Manager (PM) be assigned?	Y
Will the PM managing the project be credentialed (if costs could reach \$1 million or more)?	Y
Does your agency have experience with the vendor (if used)?	TBD
Does the vendor have professional experience with similar projects?	Y

Investment Sustainability Questions	Agency Response (Y/N)
Are ongoing/5-year support costs, once the project has been implemented, reflected in the operational costs for the PIJ?	Y
Has your agency addressed supporting components to ensure the investment can be sustained, e.g., documentation, application ownership, portability, plans upon contract/support termination?	Y
Does the production site have sufficient failover and disaster recovery plans in place to assure your agency will be able to recover from an unplanned incident?	Y
Does your agency and/or the proposed vendor have the resources and supporting infrastructure currently in place to sustain the proposed investment?	Y

Agency Questions	Agency Response (Y/N)
Are all current agency projects in "Green" status, with no outstanding issues that ADOA-ASET is monitoring?	Y
Does your agency currently have any projects that are in "Red" status?	N
Has your agency demonstrated a consistent reporting relationship with ADOA-ASET Oversight, e.g. reports submitted on time and accurate (verified by CIO)?	Y
Is this your agency's first PIJ?	N
Has it been more than 2 years since your agency submitted a PIJ?	N
Does your agency have a formal project methodology in place?	Y

D. Areas of Impact

ADOA-ASET - Arizona Strategic Enterprise Technology Areas of Impact

Please check which of the following technology areas will be included in the proposed solution - check all that apply:

Application Systems

- Application Enhancements
- Internal Use Web Application
- Mobile Application Development
- Arizona Enterprise Solution Platform (AESP) based Application
- New Application Development
- az.gov Web Portal

Database Systems

- Data Warehouse/Mart
- Database Consolidation/Migration/Extract Transform and Load Data
- Database Products and Tools
 - Oracle
 - DB2
 - Other: (Please specify below)
 - MySQL
 - MS SQL Server

Software

- COTS Application Acquisition
- Mainframe Systems Software
- Open Source
- Other: (Please specify below)
- COTS Application Customization
- PC/LAN Systems Software
- Virtualization

HANDS application

Hardware

- LAN/WAN Infrastructure
- Mainframe Infrastructure
- Storage Area Network Devices
- Public Safety Radios, Systems
- Other: (Please specify below)
- PC Purchases, Peripherals
- Tape Libraries/Silos
- UPS Devices

Stand-by-side terminals and Personal Identification Number (PIN) Terminals

Hosted Solution (Cloud Implementation)

- State Data Center
- Commercially Hosted
 - Amazon (AWS) GovCloud
 - Century Link - I/O Data Center
 - AWS (non-government) cloud
 - Microsoft Azure
- Vendor Hosted
- Other: (Please explain below)

Security

- Encryption
- Security Appliances
 - Firewall
 - Intrusion Detection System (IDS)
 - Intrusion Prevention System (IPS)
 - Other: (Please specify below)
- Security Controls/Systems - Other: (Please specify below)
- Physical Controls (Badging Systems, Iris Scanners, Other: (Please specify below))

Telecommunications

- Network Communications Infrastructure
- Telephony Upgrade-Business-Specific
- Telephony Upgrade-EOC Solution
- Cabling
- Trenching
- Wireless Access Points
- Videoconferencing
- Other: (Please specify below)

Enterprise Solutions

- Business Intelligence
- Document Management/Imaging
- E-Signatures
- eLicensing
- Geographic Information Systems
- Management Systems - Financial, Grants, Asset
- Other Imaging - Photos, Fingerprints, etc.
- Disaster Recovery/Business Continuity
- Other: (Please specify below)

Contract Services/Procurement

- Contract Project Management
- State Contract
- Contractor Support Services
- Vendor provided
- Install/Configuration Contract Services
- Procurement (RFP, IFB, DPR, etc.)
- Other: (Please explain below)

VI. Project Approvals

A. Agency CIO/ISO Review and Initials Required*

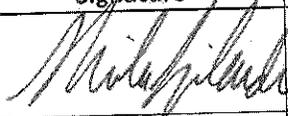
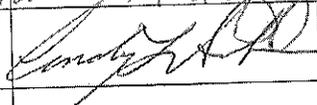
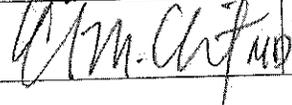
Key Management Information	Yes	No	Initials
1. Is this project for a mission-critical application system?	X		Bm
2. Is this project referenced in your agency's Strategic IT Plan?	X		Bm
3. Have you reviewed and is this project in compliance with all applicable Statewide policies and standards for network, security, platform, software/application, and/or data/information located at https://aset.az.gov/resources/psp ? If NO, explain in detail in section "VIII. Additional Information" below.	X		Bm
4. Will any PII, PHI, or other Protected Information as defined in the 8110 Statewide Data Classification Policy located at https://aset.az.gov/resources/psp be transmitted, stored, or processed with this project? If YES, the Protected Data section under "VII. Security Controls" below will need to be completed.	X		Bm
5. Will this project migrate, transmit, or store data outside of the agency's in-house environment or the State Data Center? If YES, the Hosted Data section under "VII. Security Controls" below will need to be completed.	X		Bm
6. Is this project in compliance with the Arizona Revised Statutes and GRRC rules?	X		Bm
7. Is this project in compliance with the Statewide policy regarding the accessibility to equipment and information technology for citizens with disabilities?	X		Bm

B. Project Values*

The following table should be populated with summary information from other sections of the PIJ.

Description	Section	Number or Cost
Assessment Cost (if applicable for Pre-PIJ)	I. PIJ Type - Pre-PIJ Assessment Cost	\$
Total Development Cost	V. PIJ Financials tab	\$6,048,000 - \$6,728,445
Total Project Cost	V. PIJ Financials tab	\$9,378,543 - \$10,058,984
FTE Hours	See Hover text for FTE Hours	37,100

C. Agency Approvals*

Approver	Printed Name	Signature	Email and Phone
Assistant Director for Public Health Prevention Services	Sheila Sjolander		<u>Sheila.Sjolander@azdhs.gov</u> 602-542-2818
Agency CIO/CISO	Paula Mattingly		<u>Paula.Mattingly@azdhs.gov</u> 602-542-2892
Agency CFO	Cindy Smith		<u>Cindy.Smith@azdhs.gov</u> 602-542-2996
Deputy Director for Planning & Operations	Janet Mullen		<u>Janet.Mullen@azdhs.gov</u> 602-542-1068
Agency Director	Cara Christ		<u>Cara.Christ@azdhs.gov</u> 602-542-1140

VII. Security Controls

Collaboration with the ADOA-ASET Security, Privacy and Risk (SPR) team may be needed to complete this section, which is only required for those projects that involve data that is Protected or Hosted outside of the Agency or State Data Center. Additional information can be found in the NIST FRAMEWORK section under RESOURCES at <https://aset.az.gov/resources/psp> or you may wish to contact ASET-SPR directly at secadm@azdoa.gov for assistance.

A. Protected Data*

The Arizona WIC Program maintains Personal Identifiable Information (PII) data within the HANDS database, which resides within the State Data Center (SDC); therefore meets statewide security standards. During this project, HANDS will communicate PII data to the WIC EBT system.

1. Communication Security

HANDS will exchange information with the WIC EBT system using real time messages and batch file transfers. Real time messages will use web service calls across the Internet using SSL cryptographic protocol for communication security. Message security will be provided by using a set system ID and password, unique to each initiating system, with every method call.

HANDS and the WIC EBT system will transmit batch files through Secure File Transfer Protocol (SFTP). The data exchanged between HANDS and the WIC EBT system will be encrypted using SSL protocols. A pre-determined password will accompany each file transfer and validates the sender of the file. Passwords used to secure both the online and batch file transfers are stored in a non-reversible, hashed form in the WIC EBT system database.

2. PIN Control

The WIC EBT Contractor will process and manage PINs based on current ISO and ANSI standards for PIN processing. The participant selects a private four digit PIN. During the selection process, the WIC EBT system encrypts the PIN at the point of entry and remains encrypted as it transmits the PIN to the host and stores it in the host database where the WIC EBT system links the PIN to the participant.

Every WIC EBT transaction requires the card number and PIN as part of the transaction. When the POS sends the transaction to the host system, the WIC EBT system will validate the card number and PIN. The PIN is encrypted at the time it is captured by the POS and remains encrypted throughout the life of the transaction.

B. Hosted Data*

- Check here if the <https://aset.az.gov/arizona-baseline-security-controls-excel> spreadsheet is attached. Otherwise explain below what information/ support is needed to complete the spreadsheet and/or why no sheet is attached:

The Arizona WIC Program did not include the Arizona Baseline Security Controls spreadsheet in the EBT Online Implementation and Processing Services RFP. After contract award, the WIC EBT Contractor will complete the checklist, which ASET-SPR will review to ensure compliance with statewide standards. The Arizona WIC Program will not transmit any PII data to the WIC EBT Contractor prior ASET-SPR approval.

- Check here if a Conceptual Design / Network Diagram is attached. Otherwise explain below what information/support is needed to complete the diagram and/or why no diagram is attached:

VIII. Additional Information

IX. Attachments

The following are examples of supporting documents that should be sent as email attachments when required:

- A. WIC EBT Project Gantt Chart
- B. WIC EBT Project Chart
- C. Online EBT Implementation and Processing Services RFP
- D. Online WIC EBT QA Services RFP
- E. Financial Charts by Functional Area

X. Glossary

1. **Acquirer** – Processing entity that electronically obtains transaction information and/or files from the vendor and sends them to the WIC EBT Processor or a third party.
2. **Automated Clearing House (ACH)** – Electronic clearing and settlement system used for financial transactions by US commercial banks and other institutions.
3. **American National Standards Institute (ANSI)** –The official U.S. representative to the International Organization for Standardization. ANSI oversees the creation, endorsement, and use of thousands of norms and guidelines that directly impact businesses in nearly every sector.
4. **Authorized Products List (APL)** –electronic files identifying Arizona WIC approved foods. Each WIC food is identified by a food category, food sub-category, and a universal product code or price look-up code.
5. **Automated Response Unit (ARU)** – Allows participants and vendors to obtain and update account information without speaking to a live person.
6. **Batch File** – Large amounts of data that HANDS sends to the WIC EBT system on a scheduled basis, and vice versa.
7. **Business Requirements Document (BRD)** – Details the business solution for a project including the documentation of customer needs and expectations.
8. **Participant** – The family member that uses their WIC EBT card to purchase WIC foods at the vendor point of sale.
9. **Electronic Benefit Account (EBA)** – Online WIC EBT account that contains benefits for the entire family. The participant accesses the EBA by using the WIC EBT card and PIN at the vendor point of sale.

10. **Electronic Benefit Transfer (EBT)** - Automated delivery of government benefits or services through computers, cards, and innovative technology.
11. **Electronic Benefit Transfer (EBT) Processor** – The entity that provides transaction processing services to the card issuer.
12. **End of Processing Day** – The Arizona WIC Program and WIC EBT Contractor time that dictates the end of a 24 hour transaction processing cycle.
13. **Feasibility Study** – A USDA FNS required document that includes an alternatives analysis and cost benefit analysis.
14. **File Transfer Protocol** – Standard network protocol used to transfer computer files from one host to another host over the Internet.
15. **First Date to Use (FDTU)** – The first day that the participant's food benefits are available for use.
16. **Food Category** – USDA FNS defined organizational structure for food benefits in the WIC EBT environment. A food category identifies a general food group (i.e. low-fat milk, legumes).
17. **Food Instrument** – A voucher, check, coupon or other document which is used by a participant to obtain supplement foods.
18. **Food Package** – The prescription of food benefits that the Arizona WIC Program issues to each participant. The prescription varies based on the participant category and/or age.
19. **Food Sub-Category** – USDA FNS defined organizational structure for additional classification within the food category in the WIC EBT environment.
20. **Food & Nutrition Services (FNS)** – Agency that increases food security and reduces hunger in partnership with cooperating organizations by provide children and low-income people access to food, a healthy diet, and nutrition education in a manner that supports American agriculture and inspires public confidence.
21. **Health and Nutrition Delivery System (HANDS)** – WIC clinic application used by Local Agency personnel to certify and issue participant food benefits.
22. **Health Insurance Portability and Accountability Act of 1996 (HIPPA)** - Primary goal of the law is to make it easier for people to keep health insurance, protect the confidentiality and security of healthcare information and help the healthcare industry control administrative costs.
23. **Implementation Advance Planning Document (IAPD)** - A USDA FNS required document for requesting federal funding. The IAPD represents the budget, acquisition and implementation approach in planning for WIC EBT.
24. **Integrated Electronic Cash Register System** – A computerized network operated by a main computer linked to several checkout terminals. The checkout terminals typically include a computer, monitor, cash drawer, receipt printer, customer display, barcode scanner, scale, and a card acceptor device. The POS unit handles the sales to the consumer. The main computer typically handle other functions of the POS system such as inventory control, purchasing, receiving, and transferring of products to and from other locations.
25. **International Organization for Standardization (ISO)** - Independent, non-governmental membership organization and the largest developer of voluntary International Standards.
26. **Joint Application Design (JAD)** – Methodology that involves the developer and end user in the design and development of an application.

27. **Last Date to Use (LDTU)** – The last day that the participant’s food benefits are available to use.
28. **Local Agency** - County Health Departments, non-profit Health Centers, Food Banks, and Indian Tribes that the Arizona WIC Program contracts with to provide services to participants.
29. **Magnetic Ink Character Recognition (MICR)** – Character recognition technology adopted mainly by the banking industry to facilitate check processing.
30. **Magnetic Stripe Card** – type of card that is capable of storing data by modifying the magnetism of iron-based particles on the magnetic stripe.
31. **Management Information System (MIS)** – Application used by WIC clinic personnel to certify participants and issue food benefits.
32. **Mixed Basket** – Integrated electronic cash registers have functionality to allow cashiers to combine WIC and non-WIC purchases into a single transaction.
33. **Not to Exceed (NTE) Price** – FNS approved cost containment methodology whereby WIC vendors are subject to price limitations. For food items, the WIC EBT system adjusts payments to vendors to ensure the price paid may be equal to but not in excess of the maximum, not to exceed price.
34. **Offline WIC EBT** – Participant food benefits are stored on an imbedded chip card. The WIC transaction takes place between the vendor POS and the imbedded chip card.
35. **Online WIC EBT** – Participant food benefits are stored in an electronic benefit account. The participant uses a magnetic stripe card and PIN to authorize purchases at the vendor POS that deducts from their electronic benefit account.
36. **Operating Rules** – Define the environment of WIC transactions and give a framework for mitigating errors and assigning liabilities
37. **Personal Account Number (PAN)** - WIC EBT card number.
38. **Personal Identification Number (PIN)** – Participant’s private, self-selected, four digit number used in conjunction with their WIC EBT card to authorize a WIC purchase.
39. **Point of Sale (POS)** – The location in the retail environment where transactions take place.
40. **Project Management Institute (PMI)** – The world’s leading not-for-profit professional membership association for the project, program and portfolio management profession.
41. **Project Management Professional (PMP)** – PMI certification, the most industry recognized certification for project managers.
42. **Real Time Message** – A message based communication where HANDS sends real-time or near real time data to the WIC EBT system and vice versa.
43. **Reconciliation** – Validation of participant of food benefit issuance against food benefit redemption at the family and participant levels.
44. **Request for Proposal (RFP)** – A solicitation, often made through a bidding process by an Agency or company interested in procurement of a commodity or service.
45. **Secure File Transfer Protocol (SFTP)** – Computing network protocol for accessing and managing files on remote file systems. SFTP encrypts commands and data both, preventing passwords and sensitive information from being transmitted in the clear over a network.

46. **Secure Socket Layer (SSL)** – Standard security technology for establishing an encrypted link between a server and a client.
47. **Settlement** – The act of reimbursing vendors for WIC food redemptions that were processed and approved in each store, whether food instruments or WIC EBT.
48. **Smart Card** – an imbedded chip card where participant’s food benefits are stored on the imbedded chip.
49. **Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)** – Public health nutrition program administered by the USDA FNS that provides low income, at-risk participants with breastfeeding support, nutrition education, and supplemental foods.
50. **Split Tender** – Integrated electronic cash registers have functionality to allow participants to pay with multiple forms of tender, from most to least restrictive (i.e. WIC, SNAP, Credit or Debit, and cash)
51. **Stand-beside Solution** – a computer terminal that vendors use to process only WIC transactions. The stand-beside solution includes barcode scanner, card reader, keypad, PIN selection terminal, and printer.
52. **Technical Implementation Guide** – This document provides specific implementation guidelines for parties processing online WIC EBT transactions and applies to vendors, POS system integrators, cash register providers, POS terminal providers, third party processors, and WIC EBT processors.
53. **Third Party Processor (TPP)** – A company that provides transaction-processing services such as routing and switching of WIC EBT transactions to another party on behalf of the vendor.
54. **United States Department of Agriculture (USDA)** -
55. **Universal Product Code (UPC)** – a unique barcode system used to identify specific items. All packaged foods have a different UPC that differentiates the item from any others.
56. **Universal Product Code (UPC) Database** – the database that will exist within HANDS that contains all of the Arizona WIC Program approved foods. The database will be driven by the UPC and contain fields such as manufacturer, brand, description, size, unit of measure, food category, and food subcategory.
57. **User Acceptance Test (UAT)** – End user testing that includes real world scenarios.
58. **Vendor** – Grocery store or other provider that the Arizona WIC Program contracts with to sell WIC foods to participants.
59. **WIC Universal MIS/EBT Interface (WUMEI)** – This document standardizes the functional requirements for the Universal Interface between the WIC MIS and the WIC EBT systems used in the WIC nutrition program. The users of this document are WIC State Agencies, WIC EBT Processors, and WIC MIS developers.

Other Links:

[ADOA-ASET Website](#)

[ADOA-ASET Project Investment Justification Information Templates and Contacts](#)

[Arizona Department of Health Services - Women, Infants and Children \(WIC\)](#)

[Arizona Department of Health Services - WIC Vendors - Home](#)

[USDA FNS – WIC EBT Operating Rules](#)

[USDA FNS – WIC EBT Technical Implementation Guide](#)

[USDA FNS – WIC Universal MIS/EBT Interface](#)

[USDA FNS - Food Category & Subcategory Table](#)

Email Addresses:

[Strategic Oversight](#)

[ADOA-ASET Webmaster@azdoa.gov](mailto:Webmaster@azdoa.gov)