



# Air-Transport IT Services Inc.

## Support: EASE™ - CUSS

### Airline Validation and the Upgrade Process



# Support Overview

Presenter(s)  
Sharon Abate and Don Casey

Moderator  
Chris Keller



our  
people.

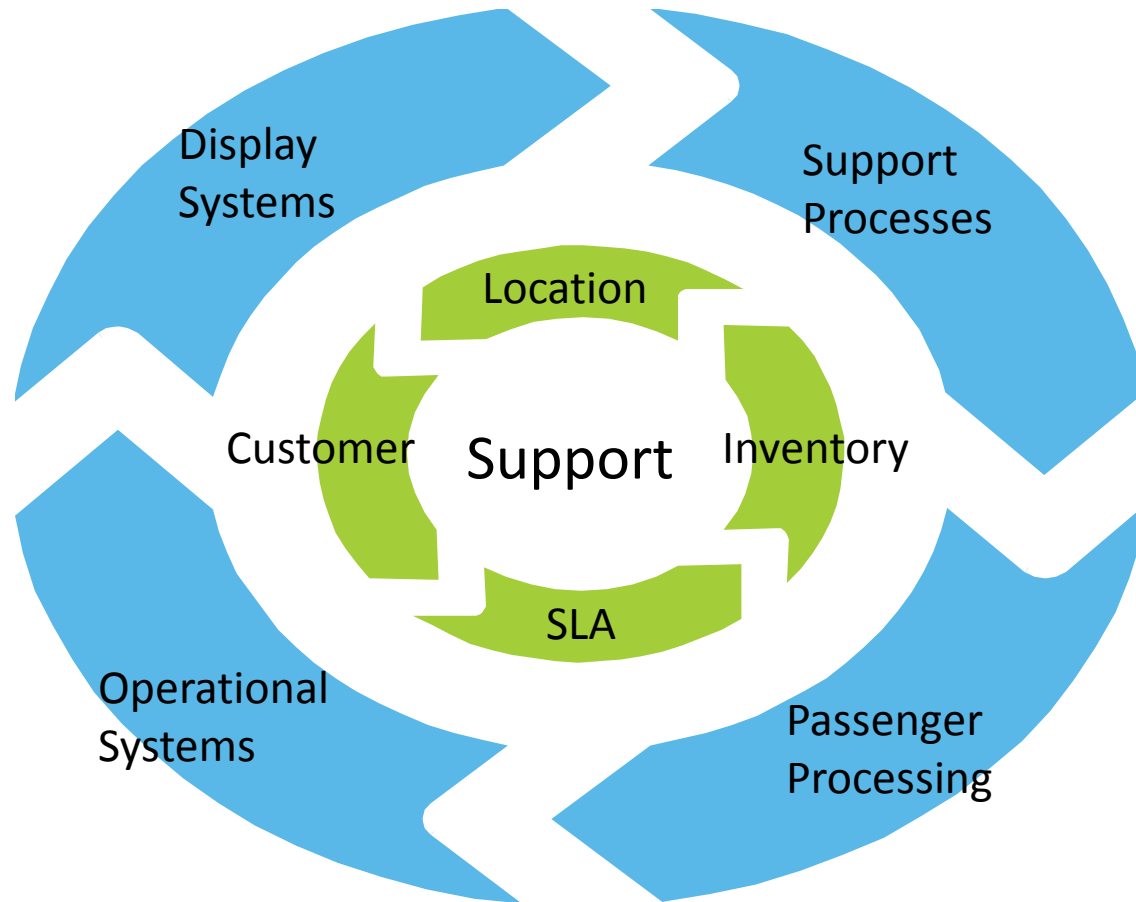
the  
vision.

your  
solutions.

# Support Overview

- Structure
- Procedures
- Support Center
- Tickets
- Escalation

# Support Structure



## Support Model

- Dedicated support staff
  - Staffed
  - Non Staffed
- Common processes
  - Systems check
  - Walk Through
- Site visits/Wellness checks
- Airport Categories
- Problem Management
- Service Level Processes
- Escalation

## Site Visits/Wellness Checks

- Non AirIT staffed sites
  - Visiting AirIT Engineer
  - Wellness Visit
    - On site visit
    - Identify any support items
    - Correct support items
    - Open tickets for second level issues

## Airport Categories

AirIT has several airport categories. The size of the airport directly relates to the severity of support calls. There will be a severity process depending on airport category for the help desk to follow.

Site	Impact	Product
-Extra Small	-Low	-Passenger Processing
-Small	-Medium	-Operational Systems
-Medium	-High	-Display Systems
-Large		
-Extra Large		

# Problem Management

- Trouble Ticket Reporting
  - Manage single trouble ticket system to a predefined set of standards company wide
  - Every site will use NOVO following a predefined template and flow
    - Define Template and Flow per Product
  - Standard Recording Metrics company wide
  - Automated Escalation based on Product and Site SLA
  - Internal auditing of ticket resolution, SLA metrics, and data quality.
  - Regular follow-up on tickets with customer, vendors and internal staff.
  - External KPI access for customers to evaluate/view.
  - Customer/Management dashboard view

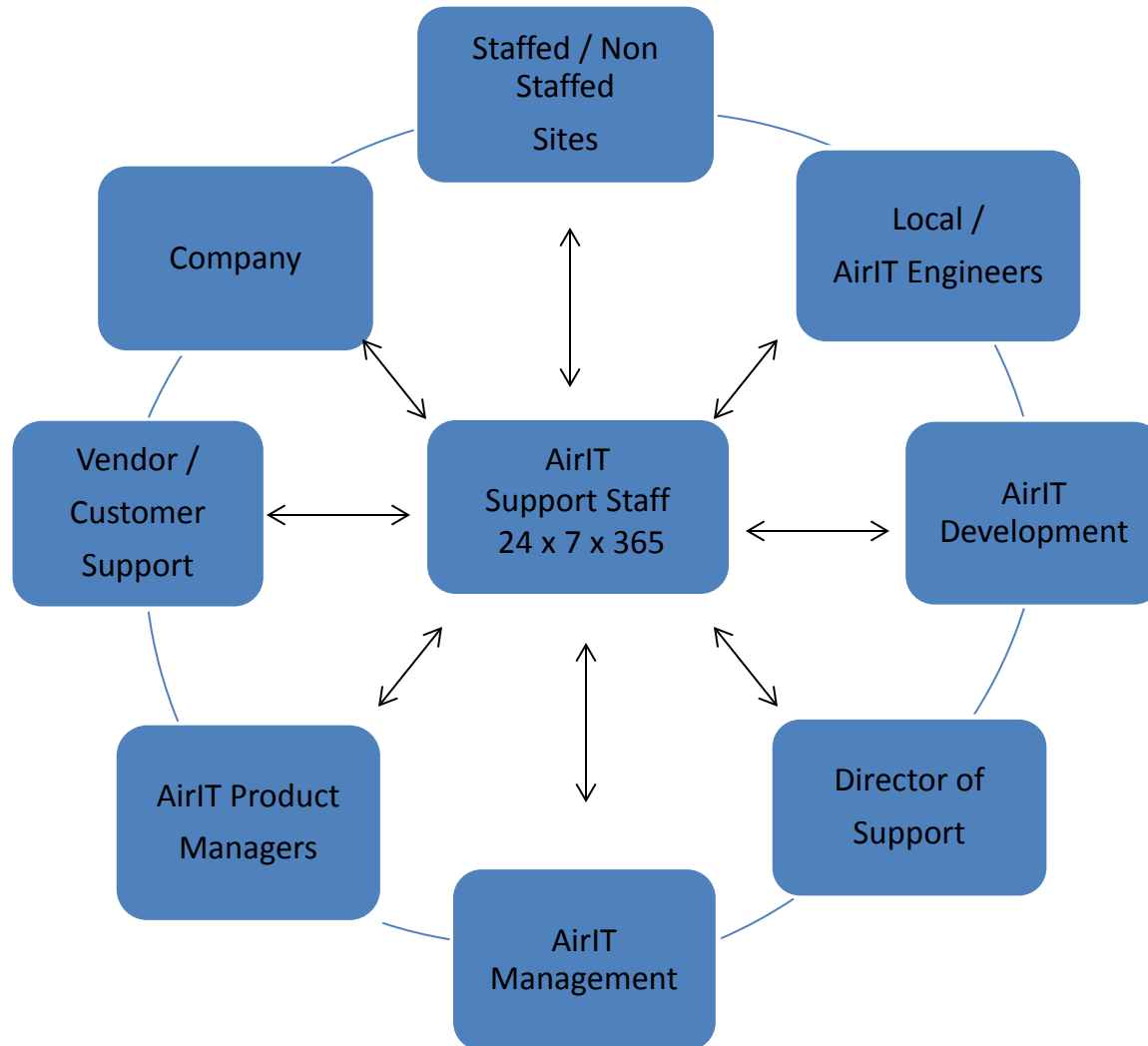


# Problem Management Process

AirIT core structure is the dedicated support staff.

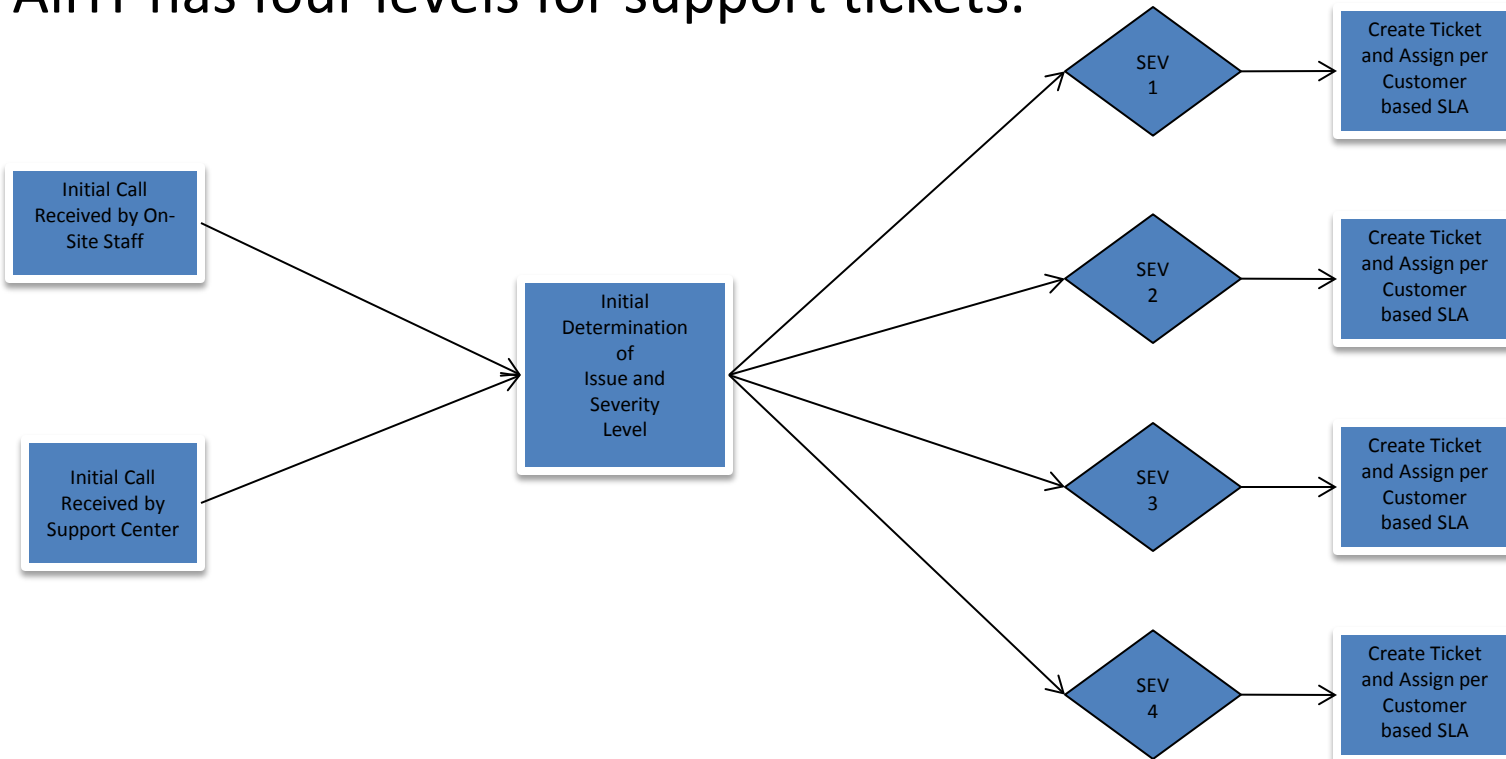
- Communication
  - Non staffed
  - Staffed sites
  - Customer
- Resolve the Issue over the phone
- Create a trouble ticket
- Update a trouble ticket
- Assign the trouble ticket to the correct staff
- Customer follow up

# Support Structure Flow



# Support Call Escalation Flow Chart

AirIT has four levels for support tickets.



## Escalation Process

### Support Issues will be escalated to the following AirIT staff:

- Staffed Sites
  - Arnaldo Mendez (ANC-FAI)
  - Chris Nunes (BKG)
  - Anthony Banner (FAT)
  - Lisandro Mendez (FLL)
  - Fred Dowding (MIA)
  - Justin Cannamela (PHL)
  - Jack Sepulveda (SJC)
  - Adi Sumandi (SMF)
  - Russell Vaughan (YWG)
- Non Staffed Sites
  - Support Line
  - On Call Support
- Support Management
  - Richard Calderon
  - Sharon Abate
- Operational Systems
  - Drew Sundin
- Operations
  - Ray Vecchiarelli

# Questions?



# EASE™ Validation

our  
people.

the  
vision.

your  
solutions.

## EASE™ Validation

- Extended Airlines System Environment  
How does the validation process work?

## Understanding EASE™ Validation

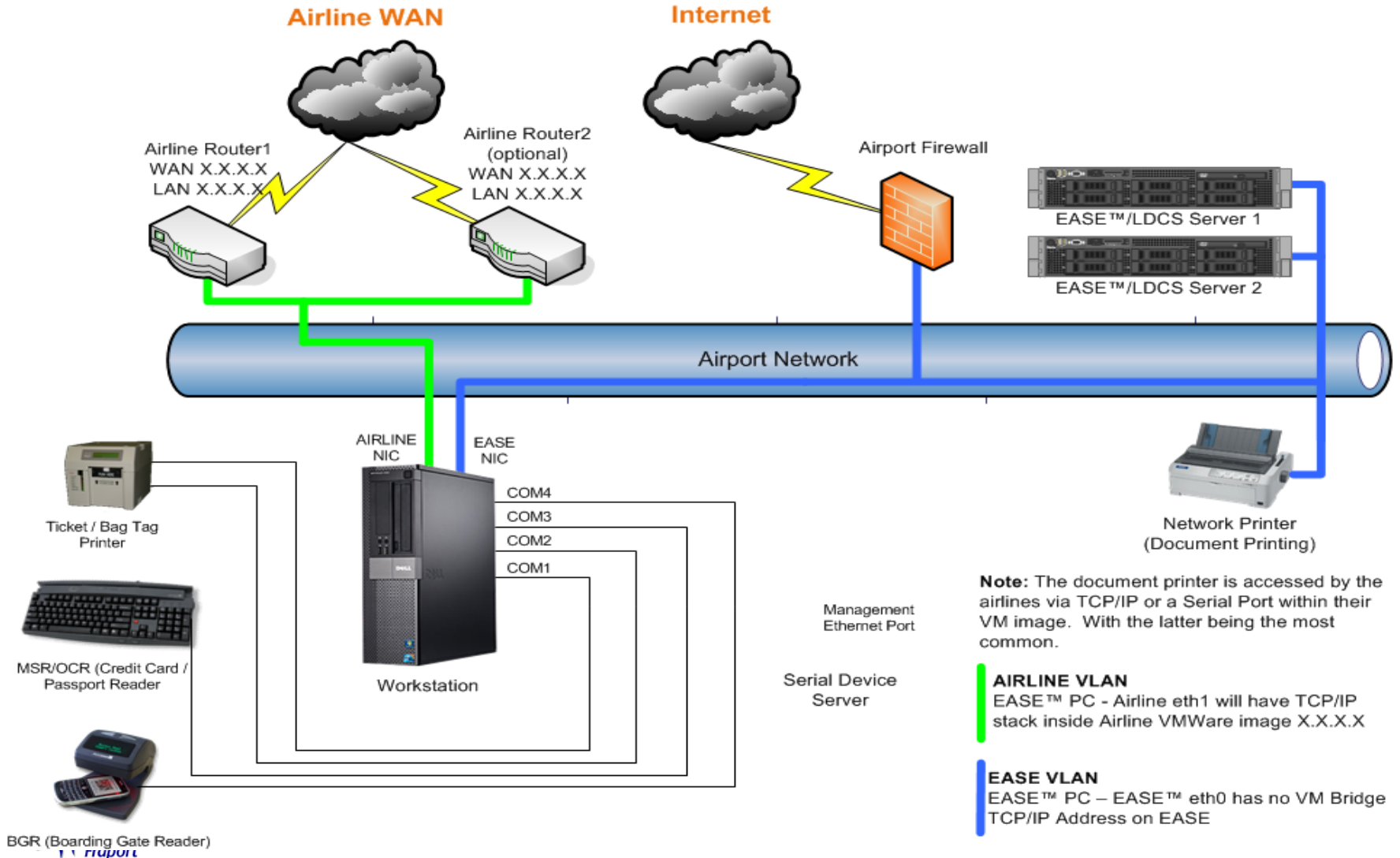
- Over six years refining a method of providing shared use
- Allows all airlines to operate in their own proprietary software environments utilizing their own tools
- EASE™ does not require carriers to change, modify or develop any new software which saves development and maintenance costs
- EASE™ is best described as a secure network-centric infrastructure platform



## Understanding EASE™ Validation

- EASE™ relies on simple VLAN switching technology
  - leverages an airport's local area network investment
  - Enables direct and secure agent-to-airline host system connection while running the airline image in a virtual environment
- Air-IT partners directly with each airline to ensure their ability to process passengers and baggage seamlessly on the carrier's own native systems within the EASE™ environment.

# EASE™ Functional Architecture

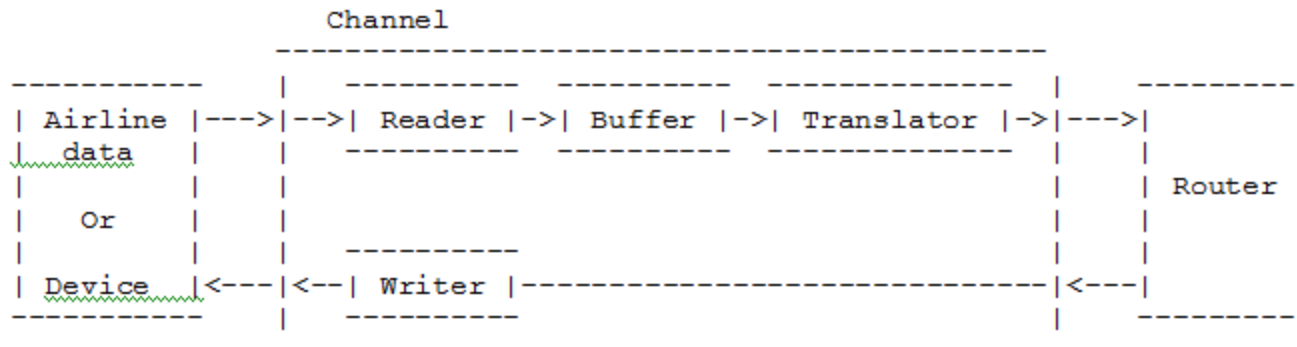


# Virtual EASE™ Peripheral Manager Overview

- V-EPM
  - Handles the exchange of data from running airline images to devices attached to the host workstations.
  - Accomplished entirely in software without any additional external hardware
  - V-EPM is configured remotely from the EASE™ server at the start of an airline session based on pre-configured settings in the EASE™ database

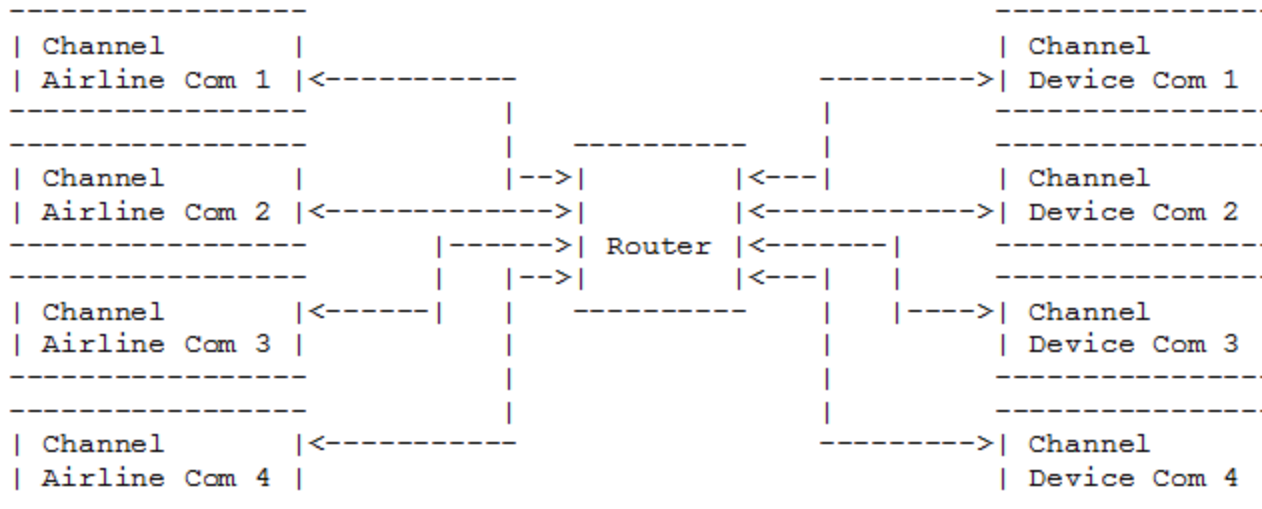
# Virtual EASE™ Peripheral Manager Overview

- Configuration
  - EASE™ server has a different configuration for each airline
  - configurations to determine the mapping of airline com ports
  - V-EPM which handles reading and writing data from a single source
    - A source can be a com port from the running airline's virtual machine
    - a device connected to the host machine



# Virtual EASE™ Peripheral Manager Overview

- The V-EPM can be configured to match the existing com ports used at an airline's own equipment
- For example, if a carrier normally prints ATB on COM 2, BTP on COM 1, MSR/OCR on COM3 and DCP on COM4 at a ticket position



## EASE™ Validation Information

- Communication
  - Airport
    - Initial contact to airlines should be made by the airport
    - Kickoff meeting
  - Air-IT
    - Central coordination communication through Fred Atarian
    - Technical communication through Don Casey / Mark Kummerer
- Preliminary Work
  - SDK
    - EASE™ does not use APIs
  - CIS Survey
    - Tell us about your environment

## EASE™ Validation Information

- Stand Alone Dedicated Hardware
  - Image preparation
    - Build a PC that your airline would use
    - Any O/S supported by VMware
    - P2V – Physical to virtual
  - Application Platform
    - Web based
    - Java
    - C

## EASE™ Validation Information

- Building a base workstation (Approximately 4 hrs)
  - Airline should determine if they use multiple different workstation types. This process would need to be repeated for each:
    - Curbside
    - Check In
    - Customer Service
    - Boarding
    - Baggage



## EASE™ Validation Information

- PECTABs
  - Airline can provide before validation
  - Captured during validation
- Print Data Streams
  - Airline can provide before validation
  - Captured during validation

## EASE™ Validation Information

- IP Printing
  - Layer 3 routing
  - IPs to be provided by airline
  - NAT and PAT to EASE™ server
  - Translate and redirect to workstation / EPM
  
- MSR/OCR
  - Serial
  - Keyboard wedge
    - AirIT provided keyboard wedge app

## EASE™ Validation Information

- Gate Reader
  - BGR EGR LSR or BCR
  - Serial
  - Keyboard wedge
    - AirIT provided keyboard wedge app

## EASE™ Validation Information

- Airline Application Updates
  - Same as dedicated world
    - SMS
    - Advertised applications
  - Dedicated FTP
  - Client / Server
- AirIT does not require re-validation
  - If print routines do not change, there is no need to re-validate

## EASE™ Airline Validation

- Airline to create base workstation install on their own hardware.
  - Airline to verify all hardware functionality:
    - ATB
    - BTP
    - MSR/OCR
    - Barcode Readers (if used)
    - Boarding Gate Readers (if used)
    - Document Printing

# EASE™ Airline Validation

## Test printing and peripherals –

- ATB
  - General
    - Provide PECTABS (Airline Provides)
    - Is the ATB Firmware AEA Compatible Firmware?
    - Which AEA Version?
    - Data Capture [SAMPLE DATA CAPTURE PROVIDED] (Airline Provides or AirIT can capture during validation)
    - Templates(Airline Provides)
    - Logos(Airline Provides)
    - Host Responses(Airline Provides)
    - Number of Stocks Type Required(Airline Provides)
    - 1D or 2D Barcodes Requirements(Airline Provides)
  - Serial
    - ATB Com Port Usage(Airline Provides)
  - IP
    - IP Socket Settings
    - LPR/RAW

# EASE™ Airline Validation

- BTP
  - General
    - Provide PECTABS(Airline Provides)
    - Does the Airline have Vidtronix Firmware or Host
  - Facility? (Airline Provides)
    - Data Capture (Airline Provides or AirIT can capture during validation)
    - Logos(Airline Provides)
    - Length of Stock(Airline Provides)
  - Serial
    - BTP Com Port Usage[i.e. COM2] (Airline Provides)
  - IP
    - IP Socket Settings
    - LPR/RAW
    - Data Capture
    - Host Responses

# EASE™ Airline Validation

- MSR/OCR
  - General
    - Keyboard Wedge or Serial Connection (Airline Provides)
    - MSR Com Port Usage[i.e. COM3] (Airline Provides)
    - OCR Com Port Usage[i.e. COM3] (Airline Provides)
    - Are the Devices Integrated in a single MSR/OCR or separate devices? (Airline Provides)
    - Is the MSR and or OCR integrated into the keyboard? (Airline Provides)
    - Data Capture (Airline Provides or AirIT can capture during validation)



## EASE™ Airline Validation

- BCR
  - General
    - Serial or Other (Airline Provides)
    - Com Port Usage[i.e. COM4] (Airline Provides)
    - Does the Airline use 1d or 2d barcodes? (Airline Provides)
      - Type of Bar Codes used [i.e. Aztec, PDF417] (Airline Provides)
  - Data Captures (Airline Provides or AirIT can capture during validation)

# EASE™ Airline Validation

- BGR
  - General
    - Serial or Other (Airline Provides)
    - Com Port Usage[i.e. COM4] (Airline Provides)
    - Does the Airline use 1d or 2d barcodes? (Airline Provides)
      - Type of Bar Codes used [i.e. Aztec, PDF417] (Airline Provides)
  - Data Captures (Airline Provides or AirIT can capture during validation)

## EASE™ Airline Validation

- TTY/MSG/Hard Copy Printing
  - Serial, Parallel, IP(Airline Provides)
  - Default Printer Used [Dot Matrix/Laser printer] (Airline Provides)
  - Data Capture (Airline Provides or AirIT can capture during validation)

## EASE™ Airline Validation

- Translation Creation
  - AirIT will generate an airline specific EASE™ Translator for Application/Device Communication
- Application Testing (approx. 4hrs)
  - AirIT and Airline will work together to ensure all application functionality is available in the EASE™ Environment
- Beta/Site Testing (approx. 8hrs)
- Validation of Network and Application Functionality in an EASE™ Airport

## AirIT EASE™ Image Deployment Process on Site

- Capture Airline Image – Prepare for Deployment
  - Depending on airlines method of distribution this could be handled multiple ways;
    - P2V
    - Airline built image as a virtual machine by the airline
    - Virtual machine built at the time of validation and airline to install and configure applications
- Configure and test airline image in virtual environment

# AirIT EASE™ Image Deployment Process on Site

- Network Connectivity
  - Validate network connectivity between local (airport) and destination (airline)
- New EASE™ Images
  - EASE™ database configured for new airline.
  - Naming convention
  - Devices
  - Images are built according to airline process
  - Images are set up on a test lab workstations
  - AirIT schedules testing with the airline
  - Testing is performed
  - Problem resolution if any is conducted
  - Successful Testing
    - Schedule deployment
    - Deploy the Images
    - Validate with airline no production issues

# AirIT EASE™ Image Deployment Process in Lab

- Network Connectivity
  - Validate network connectivity between lab and airline host
- New EASE™ Images
  - EASE™ database configured in airline lab.
    - Naming convention
    - Devices
  - Images are built according to airline process
  - Images are set up on a lab workstations
  - Image testing
    - Testing is performed by airline
    - Problem resolution if any is conducted
    - Successful Testing
      - Images are packaged and provided to AirIT
      - AirIT deploy the Images
      - Validate with airline no production issues

## Upgrades for EASE™ Image

- AirIT has 2 processes for upgrades
  - Airline upgrades
    - Upgrades performed by the airline
    - No AirIT involvement
  - Airline upgrades requested from AirIT
    - Airline provides an image upgrade to AirIT
    - AirIT schedules a test of the upgrade with the airline
    - Successful testing of the image upgrade
    - AirIT schedules and deploys the upgrade



## AirIT Performs Upgrade

- AirIT is not locked into one method of testing upgrades
  - Perform Upgrade Testing
    - Orlando Lab
    - Airline Lab
    - Airport Lab
  - Successful Testing
    - BETA
    - Schedule deployment
    - Change Management
    - Deploy the upgrade

# Questions?



# CUSS Validation

our  
people.

the  
vision.

your  
solutions.

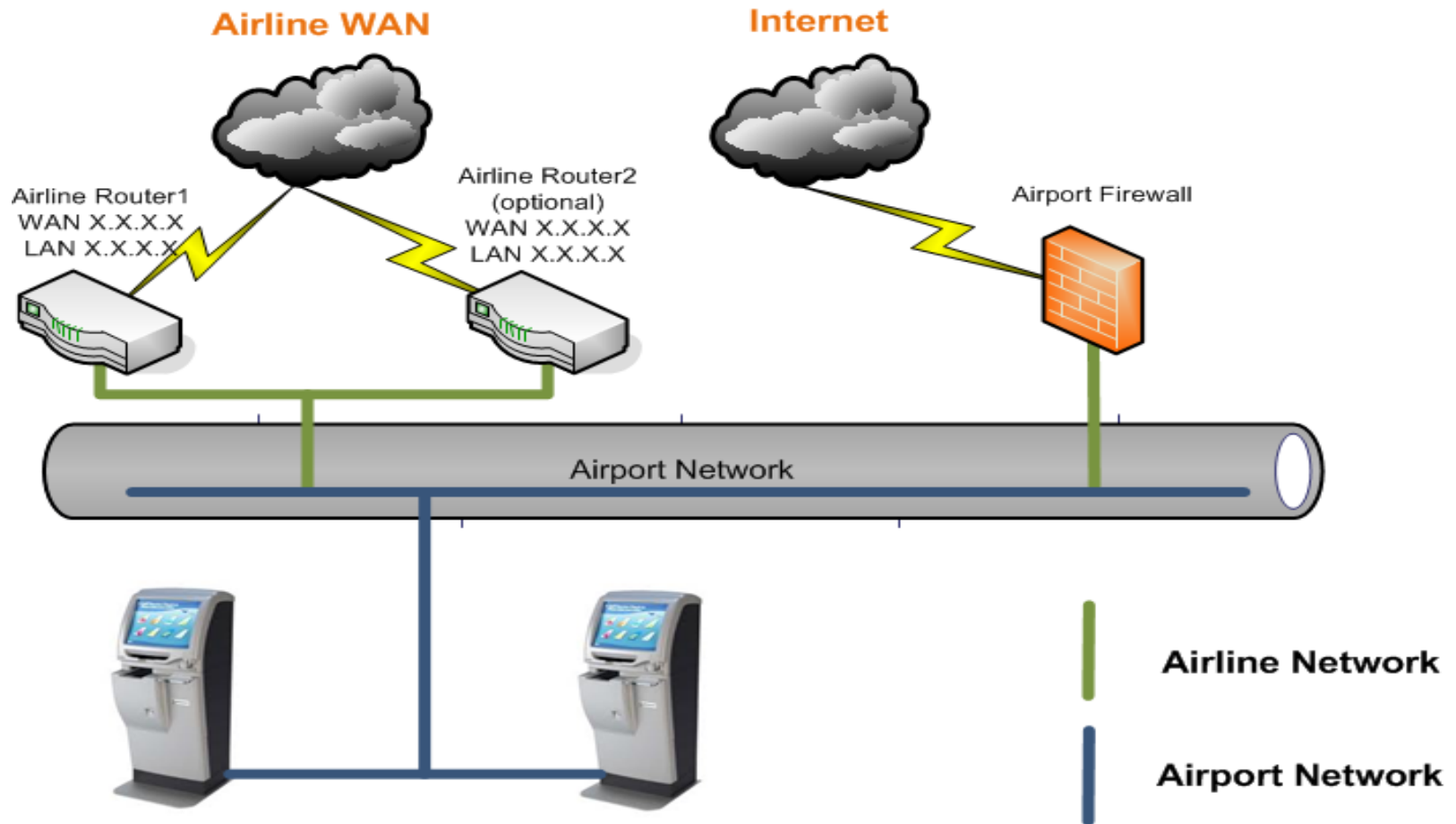
# CUSS Validation

- Common Use Self Service  
How does the validation process work?

## CUSS Validation

- CUSS Vendor Relationship
  - IER
- IATA CUSS Specifications
- Airline applications are written to the IATA CUSS Specifications
- Certification is required

# CUSS Functional Architecture



## IER CUSS Certification Process

- Brand new application to the IER CUSS platform
  - Certification testing is required
  - Testing is done in the CUSS lab located in Paris France
  - Requirements of the application Provider:
    - CUSS application files
    - Connectivity to backend (usually a test partition) for testing.
  - Attendance in Paris for the testing is not required
    - Testing usually takes about 1 week
    - Upon completion, a certificate is issued
    - The application package is uploaded on the IER FTP site

# AirIT CUSS Deployment Process

- Network Connectivity
  - Validate network connectivity between local (airport) and destination (airline)
- Brand new application to the IER CUSS platform
  - CUSS platform configured for local use.
    - Naming convention
    - CUSS configuration such as CLA attract page
    - Interconnectivity with ticket counters to issue bag tags
  - Application packages are validated by down loaded from IER
  - Application packages are set up on a test CUSS unit(s)
  - AirIT schedules testing with the airline
    - CUSS testing is performed
    - CUSS problem resolution if any is conducted
    - Successful CUSS Testing
      - Schedule deployment
      - Deploy the CUSS application



## IER CUSS Upgrade Process

- Application changes:
- IER has 2 categories for application changes
  - Business logic/presentation layer changes
  - \*Retesting in the CUSS lab is not required
- CUSS layer changes
  - Adding new device functionality, CUSS interface layer
  - \*Testing is required in the Paris lab.
    - Testing time is usually less than 1 week but depends on the changes.
    - The same requirements as the certification process apply.

# AirIT CUSS Upgrade Deployment Process

- Upgraded CUSS application to the IER CUSS platform
  - Application packages are down loaded from IER or the airline
  - Application packages are set up on a test CUSS unit(s)
  - AirIT schedules testing with the airline
    - CUSS testing is performed
    - CUSS problem resolution if any is conducted
    - Successful CUSS Testing
      - Schedule deployment
      - Change Management
      - Deploy the CUSS application

Thank you  
Questions?