Wii E-Commerce Updates

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Presentation Outline

1. Wii E-Commerce overview
2. Structure of Add-On Content (AOC)
3. Attributes, Items, & Catalogs (TMD)
4. Updating your AOC
5. Restrictions & parental controls
6. Sample download flow
7. E-Commerce guideline updates
8. E-Commerce system updates

Wii E-Commerce Overview

Wii E-Commerce Overview

◆ E-Commerce Development Kit (ECDK)

◆ Flexible in-game solution for distribution of Add-On Content (AOC)

◆ Uses existing Wii Shop Channel server

◆ Usable by both WiiWare & disc titles

◆ Many "Pay & Play" WiiWare & disc titles have already been released

(Nintendo)

Nintendo Wi-Fi Connection Logos

Nintendo Wi-Fi Connection logo:

- ◆ Means that online features are
  - – Simple
  - – Comfortable
  - – Free

Nintendo Wi-Fi Connection Logos
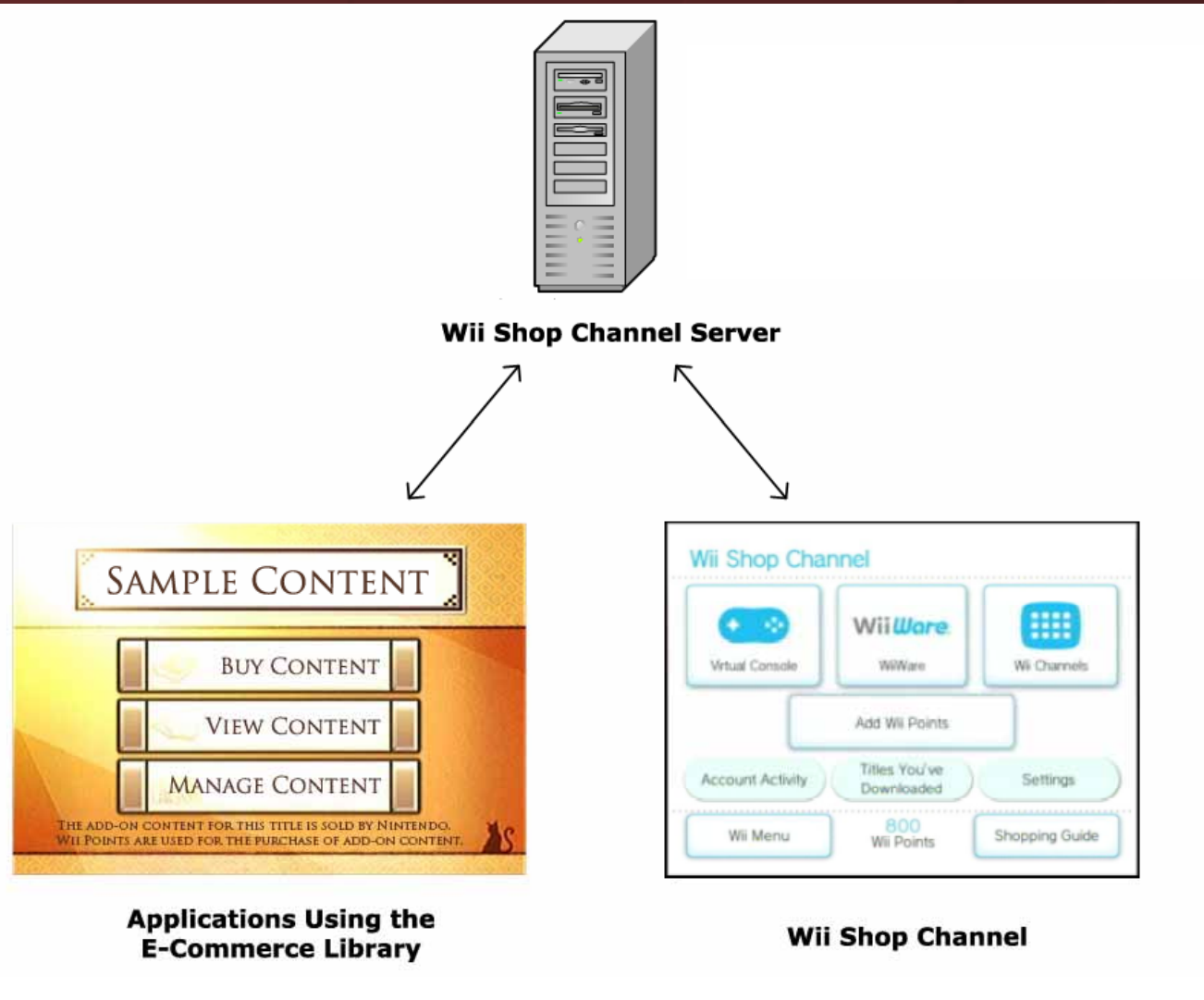

Nintendo Wi-Fi Connection logo:

- ◆ Means that online features are
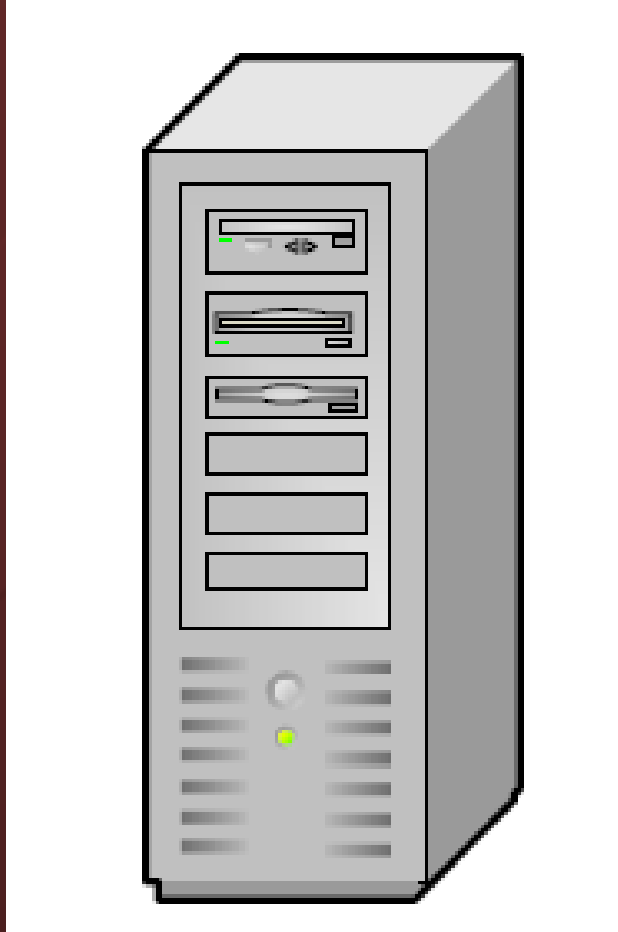 - – Simple
  - – Comfortable
  - – Free

Nintendo WFC Pay & Play logo:

- ◆ Simple
- ◆ Comfortable
- ◆ Includes for-fee content
  - – Other online features possible

E-Commerce Library
& the Wii Shop Channel

1. Wii Shop Channel Server

- ◆ Manages user accounts
- ◆ Manages user Wii Points
- ◆ Manages usage records (purchase histories)
- ◆ Sells Add-On Content licenses

2. Wii Shop Channel

◆Creates, updates, & deletes user accounts

◆Adds Wii Points

Wii Points Card

3. ECDK Application (your game)

◆ Obtains the current Wii Points balance

◆ Obtains catalogs & searches for AOC

◆ Purchases licenses & downloads AOC

◆ Updates/re-downloads already downloaded AOC

◆ Deletes already downloaded AOC

Structure of Add-On Content (AOC)

Structure of Add-On Content (AOC)

◆ Content:
- – Individual units of add-on data
- – Users must purchase licenses to allow them to download add-on data via the E-Commerce Library

Structure of Add-On Content (AOC)

- ◆ Data Title:
  - – A bundled group of content units
  - – Each content unit is assigned an index
    - ◆ Index 0 reserved for required content (save banner, etc.)
  - – When Data Title is downloaded to Wii, banner is displayed on Save Data screen
  - – Can be deleted or moved to SD cards, but cannot be copied to another Wii console
  - – Each Data Title has its own Game Code

Data Title Example

Content 0

Banner Data

Content 1

data1.arc

Content 2

data2.arc

Attributes, Items, & Catalogs

Attributes

◆ Optional name/value property strings

◆ Example: Freely set name, type, properties, etc. for in-game equipment

◆ Up to 32 attributes per data title

◆ Not included in data title itself
  – Set on the server for each content unit

Attributes

◆ Attributes can be one of 2 types:

- KEYWORD: Up to 64 bytes of UTF-8 characters
  - ◆ Can be used as search filters
- TEXT: Up to 2000 bytes of UTF-8 characters
  - ◆ Cannot be used as search filters
  - ◆ Good for detailed descriptions, etc.

Items

◆ Sales units for selected content units

◆ Sales periods, prices, and markets can be set for each item

Nintendo

Catalogs

- Include content index, pricing, attributes, and other information for each item

- Game compares version of local catalog to version on the Wii Shop Channel server & downloads if newer

- User can then select item(s) from catalog for purchase

Catalogs

- ◆ Attribute names can be specified to obtain specific values for that attribute
- ◆ Attribute names and values can be specified to filter catalog content (type=armor, level=7, etc.)

Updating your AOC

Updating Your Add-On Content

- Your title is required to handle content updates correctly
  - Even if not planned, content may need to be updated for various reasons (bugs, content-related issues, etc)
  - "Dummy" updated content must be submitted along with first AOC submission to allow Lotcheck to test your game's update process

Data Title Update Example

**Data Title version 0
(one AOC unit)**

Content 0

Banner Data

Content 1

data1.arc
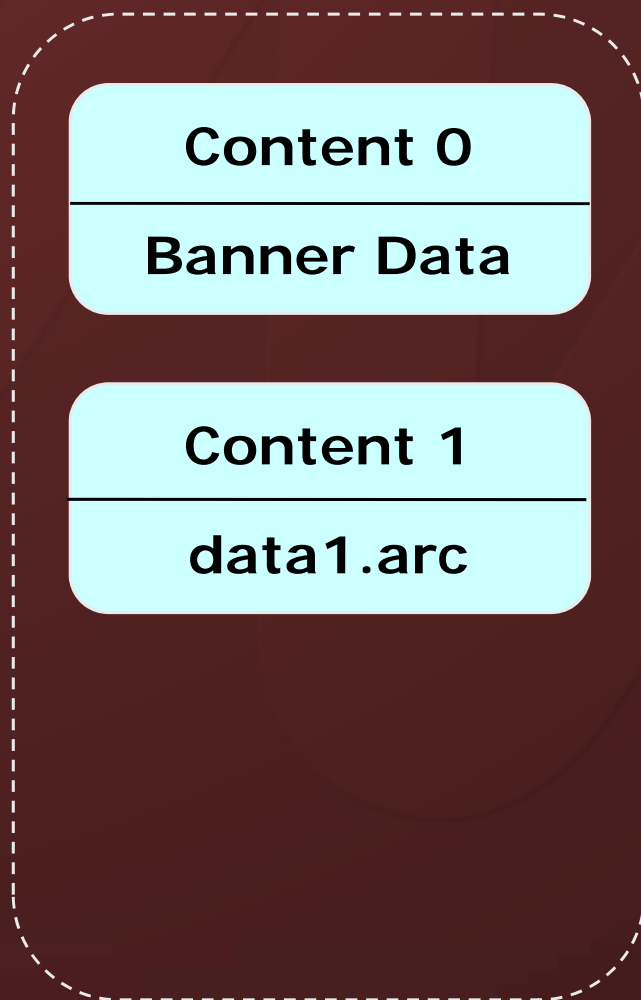
**Data Title version 1
(two AOC units)**

Content 0

Banner Data

Content 1

data1.arc

Content 2

data2.arc
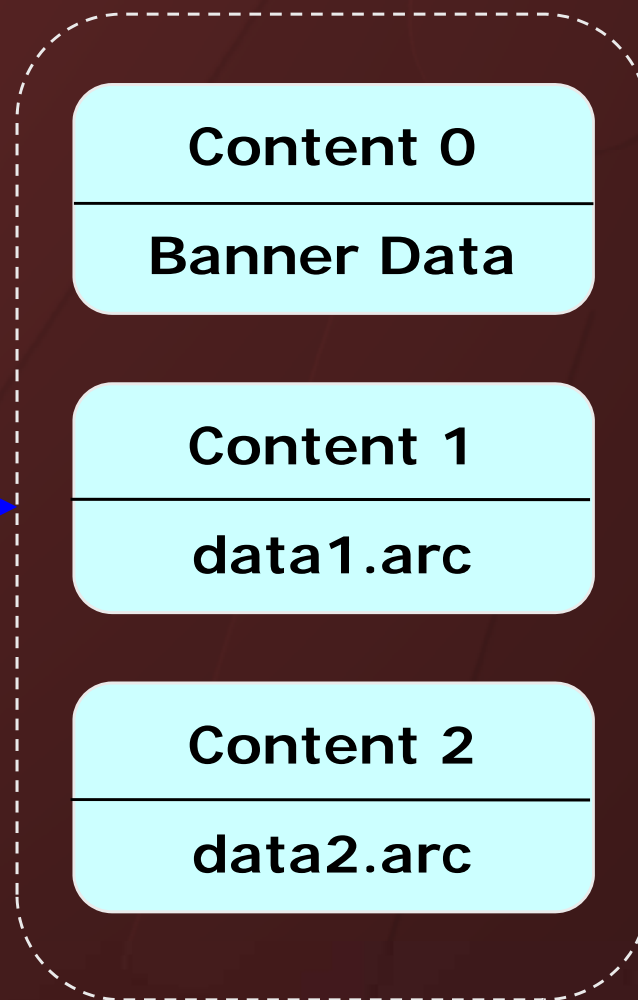
Restrictions & Parental Controls

AOC Access Restrictions

- Each application has an Application ID and TIN (Title Identification Number)

- TIN authenticates the application to access AOC on the server

- Application ID and TIN are assigned by Nintendo

- Application must provide Application ID and TIN to obtain catalogs, purchase licenses, or download content

E-Commerce Restrictions

◆ Maximum of 1 Data Title per game

◆ Each Data Title contains up to 510 items

◆ Size of each item must be 16MB or less
  – This 16MB can contain multiple files,compressed data, info to unlock assets, etc.

◆ 16MB x 510 content units = 8160MB total
  – Almost 8GB of Add-On Content (AOC) can be released per game on the server
  – Up to 64 AOC items on Wii console at once

E-Commerce Restrictions (Cont.)

◆ 100 Wii Points minimum per content

◆ Prices in increments of 100 Wii Points

◆ Add-on content must not affect rating of the original title (ESRB, CERO, etc.)

◆ Distribution of executable programs prohibited

E-Commerce Restrictions (Cont.)

◆ Each item must be usable separately

◆ As long as each item can be licensed separately, you can allow the user to license multiple items at once
  – Example: A shopping cart

Add-On Content & Save Data

◆ If game save data can be copied from the Save Data Management Screen, including Add-On Content in save data is prohibited

  – Would allow access by unlicensed users

◆ If AOC required by save data has been deleted, your game must prompt the user to re-download it

Wii Points Parental Control

- **"Restrict usage of Wii Points"**
  - Applications must check this parental control before purchase takes place
  - If set, user can enter 4-digit PIN to temporarily disable this parental control
  - Nintendo provides a 10-key keypad library for entering this PIN

Sample Download Flow

Sample Download Flow:
Display the Licenser

Download Add-On Content

This content is Licensed by Nintendo.

Cancel   OK

Wii Points are required to download this content. Exit the game, start the Wii Shop Channel, and check your Wii Points.

Display if no Wii Shop Channel account exists

Download Selection Screen

Display number of Wii Points required for download

Add-On Content 1: 500 Wii Points

Add-On Content 2: 300 Wii Points

Add-On Content 3: 600 Wii Points

Cancel
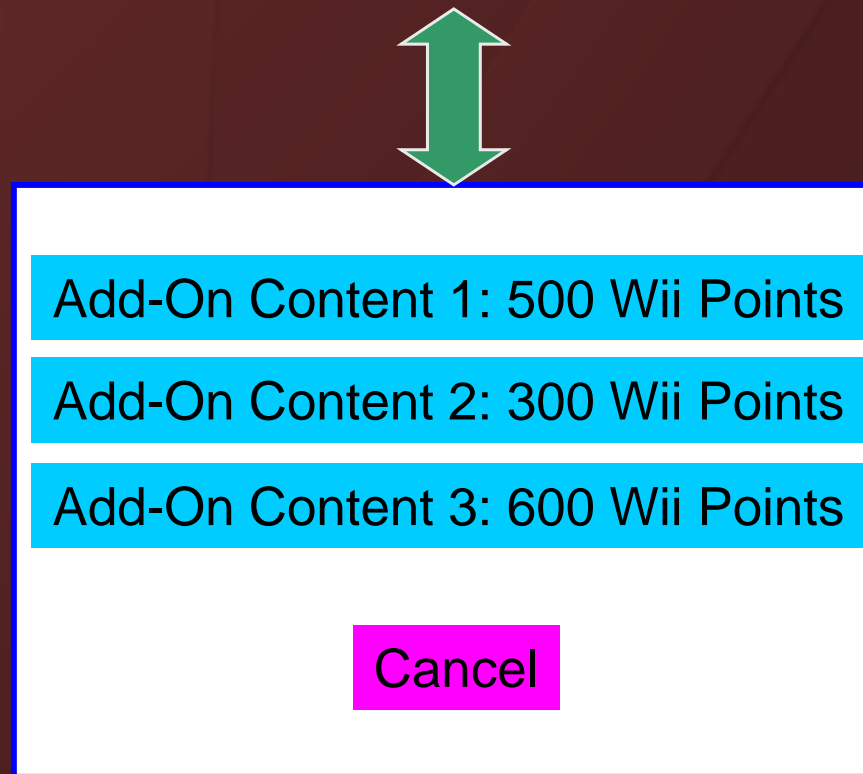
Possible Errors & Messages

The use of Wii Points is restricted by Parental Controls. Enter the PIN to temporarily remove the restriction.

Parental Control set

Insufficient Wii Points. Exit the game, start the Wii Shop Channel, and add Wii Points.

Insufficient Wii Points

There is not enough available space in Wii system memory to download this content. Create <n> block(s) of free space by either moving data to an SD card or deleting data in the Data Management screen.

Insufficient free NAND

There is not enough available space in Wii system memory to download this content. Either move data to an SD card or delete data in the Data Management screen.

Insufficient inodes

Download Confirmation Screen

Display number of Wii Points required for download

Add-On Content 1: 500 Wii Points

Description of Add-On Content

Cancel

OK

Download Details Confirmation Screen

Add-On Content 1: 500 Wii Points

Current Wii Points	1000 Points
Wii Points to Download	500 Points
Wii Points after Download	500 Points
Open Blocks	1000 Blocks
Blocks to Download	50 Blocks
Blocks after Download	950 Blocks

This content is licensed by Nintendo.
Download this content?

OK   Cancel

Download Details Confirmation Screen

Add-On Content 1: 500 Wii Points

Current Wii Points	1000 Points
Wii Points to Download	500 Points
Wii Points after Download	500 Points
Open Blocks	1000 Blocks
Blocks to Download	50 Blocks
Blocks after Download	950 Blocks

This content is licensed by Nintendo.
Download this content?

OK   Cancel

Move confirm button to prevent unintentional purchases

Download Screen

Downloading...

E-Commerce Guideline Updates

E-Commerce Guideline Updates

◆ Guideline 3.22: Add-On Content must not affect rating of the original title (ESRB, CERO, etc.)

◆ New [US titles only]: If ESRB rating descriptors for AOC differ from main title, they must be displayed before purchase

E-Commerce Guideline Updates

- ◆ New Guideline: Prices displayed to users must be obtained from Nintendo's Wii Shop Channel server
  - Prevents price synchronization issues

E-Commerce Guideline Clarification

◆ Guideline 3.33: Add-On Content available as part of a set cannot also be available for individual purchase

– Prevents user confusion & frustration

E-Commerce System Updates

Business Testing System (BTS)

◆ New BTS server allows developers to manage their own debug AOC

- Login using your game's Title ID and TIN issued via the WMS system

- Final AOC must still be submitted along with title for Lotcheck submission

E-Commerce BTS Interface

BTS .WAD "Publish" Function

BTS .XML "Import" Function

BTS .XML "Export" Function

ECDK Updates

◆ Functions added to calculate required NAND blocks/inodes for Add-On Content:
  – `EC_GetTitleResourceRequirement`
  – `EC_GetContentsResourceRequirement`

◆ Function added to obtain available area:
  – `EC_GetUserAvailableArea`

E-Commerce Cautions

- For large numbers of content items, catalog download may take time
  - Number of items to obtain can be set
  - For large stores, categorize your content to minimize download delays
- Plan ahead for release of future AOC
  - Make sure that user interface, attributes, purchase flow, etc. can accomodate it

E-Commerce Add-On Content Summary

◆ Use Nintendo's simple Wii Points system

◆ Use existing Wii Shop Channel servers

◆ No manufacturing required

◆ No inventory-related issues

◆ Maintain user interest after release

◆ Generate additional revenue

Thank you!

Questions, comments, requests?

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