

E-Commerce Technical Overview

Dylan Rhoads

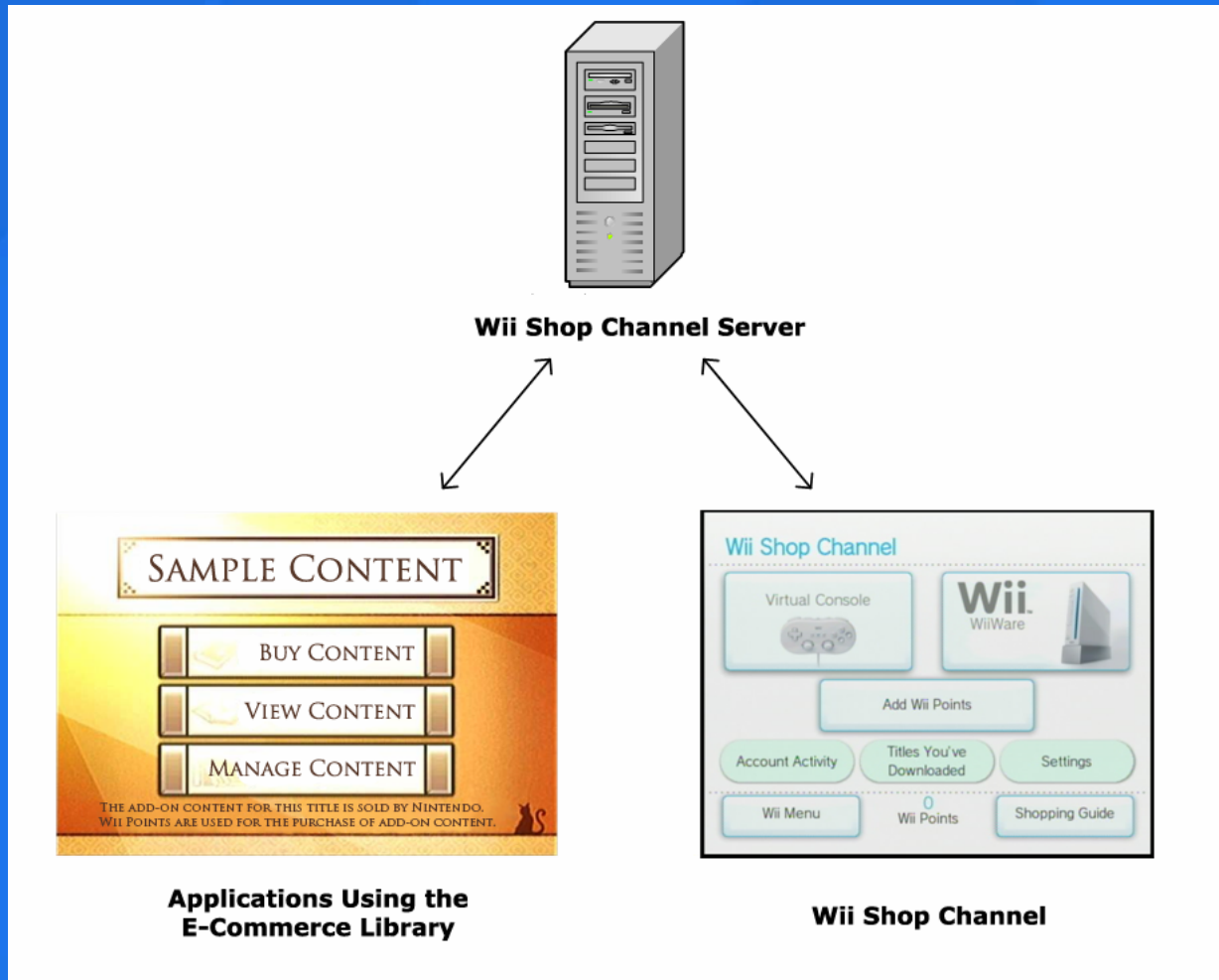
Bilingual Software Engineer

Software Development Support Group

What is the E-Commerce Library?

- A simple, flexible & transparent E-Commerce system provided by Nintendo
- Allows download of add-on content **from inside your game** using Wii Points
- Utilizes the Wii Shop Channel server
- Allows you to customize the purchase experience (with certain guidelines)
- Available for development now!

E-Commerce Library & the Wii Shop Channel



1. Wii Shop Channel Server



Wii Shop Channel Server

- Manages user accounts
- Manages user Wii Points
- Manages usage records (purchase histories, etc.)
- Sells licenses for Virtual Console and WiiWare titles
- Sells licenses for add-on content

2. Wii Shop Channel



Wii Shop Channel

- Creates, updates, & deletes user accounts
- Adds Wii Points
- Searches & downloads Virtual Console and WiiWare titles
- Updates & re-downloads already downloaded titles

3. E-Commerce Library Application

- Obtains the Wii's current Wii Points balance
- Obtains catalog and searches for add-on data
- Downloads add-on data
- Updates & re-downloads previously licensed content
- Deletes downloaded add-on content



**Applications Using the
E-Commerce Library**

Getting Started with E-Commerce

1. Read the E-Commerce Library Overview
2. Send information about your title and content to support@noa.com, including:
 - Is the game disc-based or WiiWare
 - Type & size of downloadable content
 - Planned submission & release dates
3. Complete and submit the E-Commerce Library User Agreement
4. Download Guidelines, E-Commerce Library, and other packages from Wario World

Content Licenses

- The only license available is unlimited use
- Re-download is always possible in case original data is accidentally or intentionally deleted, or Wii is repaired or replaced
- License information and downloaded data are deleted if Wii Shop Channel account is deleted

Server Access Restrictions

- Each application has an Application ID
- TIN (Title Identification Number) authenticates the application for server access
- Application ID and TIN are assigned by Nintendo
- Application must provide Application ID and TIN to the E-Commerce Library to obtain catalogs, purchase licenses, or download content
- Nintendo performs registration of content on development, test, and production servers

Data Title Access Restrictions

- If desired, Game Codes of applications allowed to access your Data Title can be set during creation
- Game Codes for your application must be set in WAD file correctly for your application to access data once downloaded
- Multiple Game Codes can be set to allow multiple titles to share add-on content
- You must obtain and register Game Codes in advance for forward compatibility

Structure of Add-on Data

- Data Title
 - A group of content bundled into a single entity
 - Includes required save banner (displayed in Wii's Save Data screen after download)
 - Can be erased or moved to/from SD cards by user
- Content units
 - Individual units of add-on data in the Data Title
 - Each content unit is assigned an index
- Items
 - Sales units with sales period, prices, and attributes
- Attributes
 - Optional name/value property strings (up to 32)

Catalogs

- Include content index, price, attributes, and other information about each item
- Application obtains from Wii Shop Channel server
- Item(s) are then selected from catalog for purchase
- Attribute names can be specified when getting catalog to also obtain values for that attribute
- Attribute names and values can be specified to filter catalog content (type=armor, level=7, etc.)

Restrictions

- Currently 1 Data Title per game title
- Each Data Title can currently contain up to 64 content units
- Each content unit currently limited to 16MB or less
 - How you use this 16MB is up to you
 - Can contain multiple files, compressed data, information to unlock assets, etc.
- $16\text{MB} \times 64 \text{ content units} = 1024\text{MB total}$
- Currently up to 1GB total add-on content per game

Restrictions (Continued)

- Each content unit must be sold separately
- As long as each item can also be licensed separately, you can implement a UI to license multiple items at once
 - Example: An in-game "shopping cart"

Restrictions (Continued)

- Minimum price per content is 100 Wii Points
- Price is set in increments of 100 Wii Points
- Add-on content must not affect the rating of the original title (ESRB, PEGI, CERO, etc.)
- Distribution of executable programs prohibited
- Data Title can be moved or copied to SD card from Wii Menu, but cannot be used on another Wii
- Content must be re-downloadable even if the sales period has ended

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 add-on data required by the save data has been deleted, prompt the user to re-download the add-on content

Parental Control

- "Restrict the use of Wii Points" setting
 - Applications must check this parental control setting before purchase takes place
 - User can enter 4-digit PIN to temporarily disable this parental control
 - Nintendo provides a 10-key keypad library for entering this PIN

E-Commerce Development Flow

1. Create a Wii Shop Channel account

- Account is created automatically the first time the Wii Shop Channel is accessed

2. Obtain Wii Points

- Library does not include a way to purchase Wii Points, so normally these must be purchased within the Wii Shop Channel
- Nintendo issues Wii Points to developers and publishers for testing on development server

E-Commerce Development Flow (Cont)

3. Create your Data Title

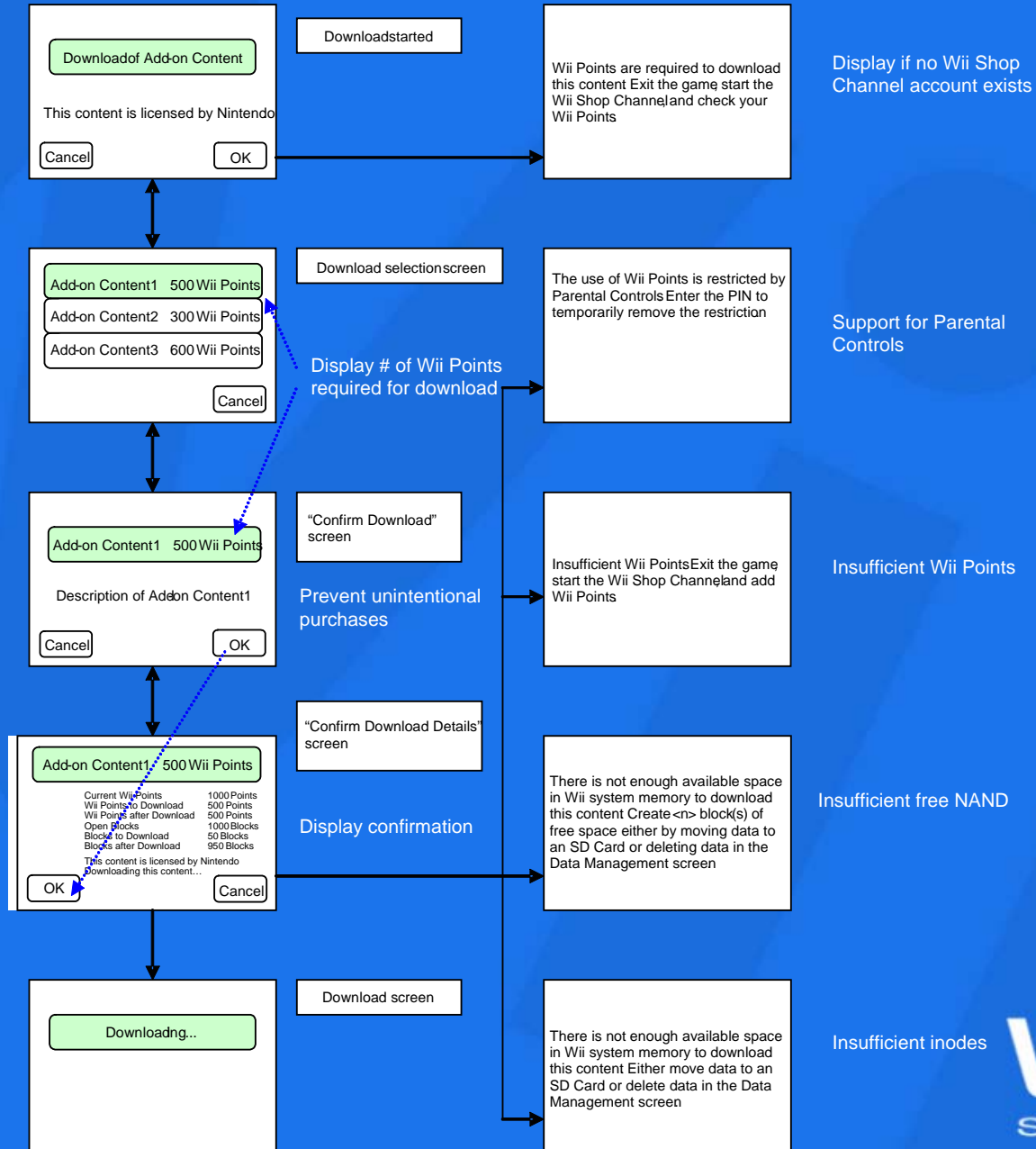
- Data Title is made of a single .WAD file
- Contains a list of content indexes
- Index 0 is required content (banner, etc)
- Indices 1 and greater contain add-on data
- Each content unit must be downloadable and usable individually

E-Commerce Development Flow (Cont)

4. Register data title on development server

- Currently performed by Nintendo
- Submit Data Title & Registration Sheet for each region to be released, including:
 - Game Codes of game title & data title
 - Item sale start date (required) & end date (optional)
 - Each item's content index & attribute(s)
 - Number of Wii Points required for item download
 - Each item's content ratings information
 - Must be same rating as the original game title

Sample Purchase Flow



Start Download Process

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



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



Confirm Download Details



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



Confirm Download Details



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 confirmation button to prevent unintentional purchases

Possible Errors & Messages

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

Parental Controls set

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

Parental Controls set

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

Insufficient Wii Points

Possible Errors & Messages

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

Parental Controls 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

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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 Screen



Downloading...

Updating Your Data Title

1. Create an updated data title
 - Example: A data title contains content units 1, 2, 3, and 4
 1. Create an updated version of content unit 3.
 2. Create a data title .WAD file containing the updated content #3 plus 1, 2, and 4
 3. Register new WAD file on server with new version number

Updating Your Data Title (Continued)

2. Release updated data title

- Once updated data title is released, the new version is downloaded from that point on
- Users who have already downloaded the old version will continue using it until they update it

Updating Your Data Title (Continued)

3. Application downloads updated data title

- Confirm whether there is an updated version by comparing version number of data title on the server with version saved on the Wii
- License is preserved after updating, so future updates can still be downloaded
- Data Title old version is deleted automatically

Thank you!

Questions?

support@noa.com