

DoubleU Games

Social casino professional developer

2017 4th Quarter Results

Ended December 31, 2017





| Disclaimer

Some contents may reflect forward-looking statements and have been prepared based on the expectations according to the dates on which these statements were made. There can be no assurance that the forward-looking statements used by DoubleU Games are correct as results can differ from expectations. Therefore DoubleU Games will not be responsible for individual investment decisions based solely on this material. DoubleU Games disclaims any duty to update the information in this material to reflect future events or circumstances.

Index

Chapter 1 **Highlight of 4th Quarter**

Performance and Key Points Summary

Chapter 2 **2017 4th Quarter Review – DUG / DDI Part**

Major game payment and key indicators

Chapter 3 **2018 1st half plan – DUG / DDI Part**

Plans for major projects such as the release of new games

Chapter 4 **Plan to cut costs in the first half of 2018**

Corporate tax and interest cost reduction plan

Appendix **Statement**

Summary of Financial Statements and Payment Status by Game

1) Quarterly sales first exceeded 110 billion won

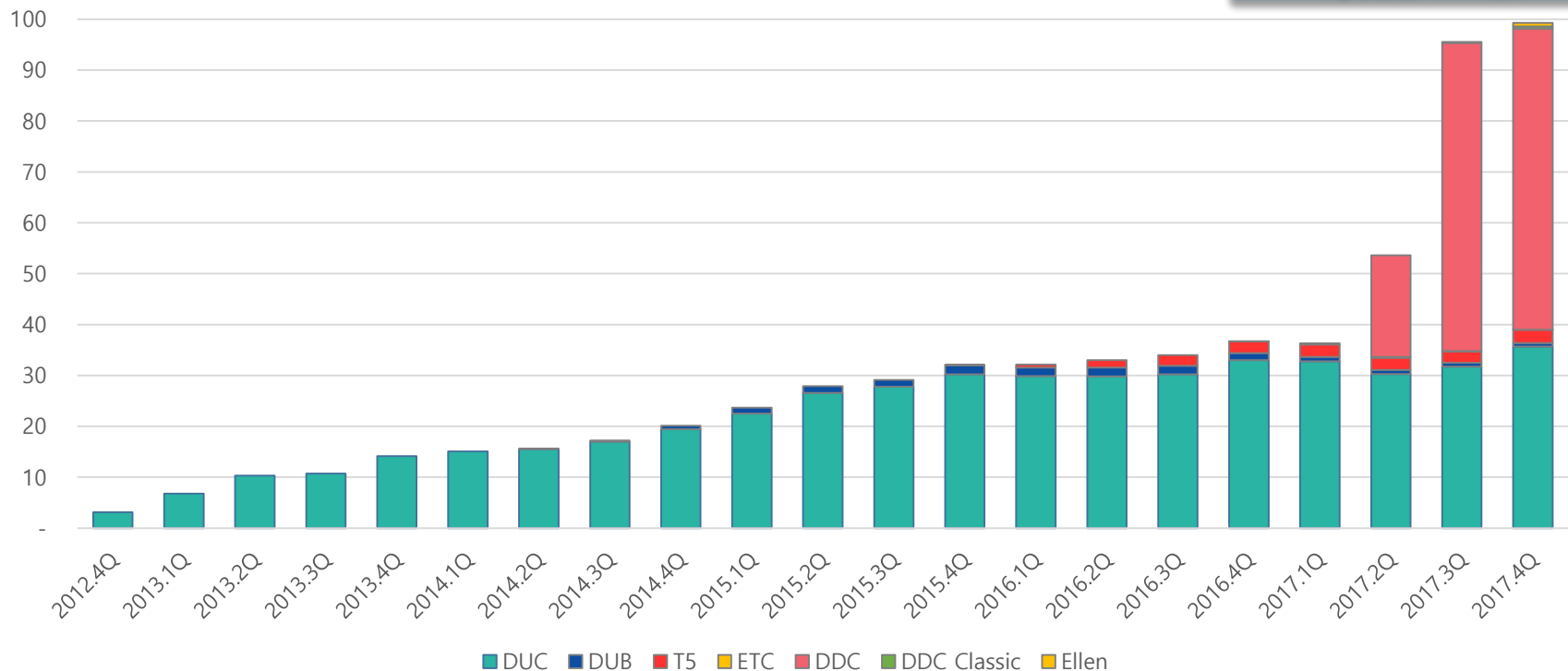
- In 2017 4Q, payments were up Q/Q by 4% and Y/ Y by 171% to reach **\$99.3mn**
- Stable growth continued with **exceeding ₩110bn in quarterly sales** for the first time

Quarterly payments growth

(Unit: million dollar)



4Q Payments \$99.3mn
4Q Sales ₩110bn



2) DUG Separate financial statements

- Sales of DUG (separate) increased by **13.2% Q/Q of ₩43.6bn**
- Operating income recorded ₩15.4bn (OP Margin 35.2%) with marketing increase and bonus payments in 2nd half

DUG 17.4Q review (separate)

(Unit: 100 million won)

	17.3Q	% to Operating revenue	17.4Q	% to Operating revenue	Q/Q Change	Q/Q %	Note
Operating Revenue	385.4		436.2		50.8	13.2%	
Operating cost	259.2	67.3%	282.6	64.8%	23.4	9.0%	
Platform fee	115.6	30.0%	131.1	30.1%	15.5	13.4%	Only variable cost (Same as 30% per platform)
Marketing cost	66.0	17.1%	79.4	18.2%	13.4	20.3%	Additional marketing cost due to increased marketing efficiency - Q/Q growth rate: DUC 12.5% / T5 13.2%
Labor cost	56.1	14.6%	54.7	12.5%	-1.4	-2.5%	2 nd half bonus payment of ₩2.15bn (2018 bonus plan will be reflected quarterly)
Other operating expenses	21.5	5.6%	17.4	4.0%	-4.1	-19.1%	
Operating income	126.2	32.7%	153.6	35.2%	27.4	21.7%	
EBITDA	131.2	34.0%	156.1	35.8%	24.9	19.0%	

3) DDI Separate financial statements

- DDI posted sales of ₩66.8bn and EBITDA of ₩23.9bn (EBITDA margin of 33.7%) in 4Q
- **Maintaining quarterly sales and profit indicators** while marketing costs have been reduced (about 1.9mn/month)

DDI 17.4Q review (separate)

(Unit: 100 million won)

	17.3Q	% to Operating revenue	17.4Q	% to Operating revenue	Q/Q Change	Q/Q %	Note
Operating revenue	686.6	100.0%	667.8	100.0%	-18.8	-1.6%	Average exchange rate Q/Q 2.2% drop
Operating cost	526.8	76.7%	511.7	78.6%	-15.1	0.9%	
Platform fee	203.7	29.7%	198.0	29.7%	-5.7	-1.6%	Only variable cost (same as 30% for each platform)
Marketing cost	67.3	9.8%	63.2	9.5%	-4.1	-5.0%	Reduced by about \$1.9mn per month
Amortization expense	81.6	11.9%	82.6	12.4%	1.0	2.4%	Amortization expenses of intangible assets due to M&A are ₩2.7bn per month
Royalty	53.9	7.8%	54.9	8.2%	1.0	3.0%	About 8% of operating revenue
Labor cost	77.7	11.3%	57.8	10.2%	-19.9	-10.9%	Reduction effect of efficient HR management
Other operating expenses	42.5	6.2%	55.1	8.7%	12.6	37.9%	
AWS	15.2	2.2%	16.9	2.5%	1.7	12.3%	Increase traffic by new games
Outsourcing service cost	16.6	2.4%	26.2	3.9%	9.5	59.3%	Increased outsourcing costs related to marketing analysis and audit
Other Operating expenses	10.7	1.6%	12.1	1.8%	1.4	14.5%	
Operating income	159.8	23.3%	156.1	21.4%	-3.7	-9.7%	
EBITDA	241.5	35.2%	238.7	33.7%	-2.7	-5.6%	

4) DUG Group's consolidated financial statements

- 4Q **operating revenue and EBITDA increased Q/Q by 3%, 4.6%** to ₩110.4bn and ₩37.8bn
- Consolidated operating revenues ₩319.4bn and EBITDA ₩102.3bn (EBITDA Margin: 32.0%)

17.4Q review (consolidated)

(Unit: 100 million won)

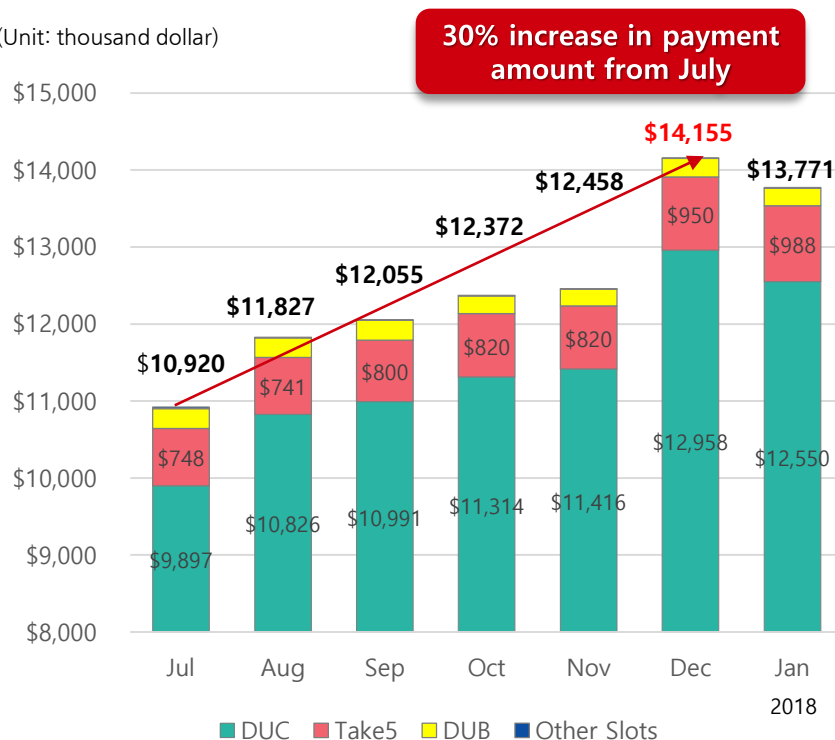
	17.3Q	% to Operating revenue	17.4Q	% to Operating revenue	Q/Q Change	Q/Q %	FY17	Note
Operating revenue	1,072.0	100.0%	1,103.7	100.0%	32	3.0%	3,193.5	
Operating cost	795.8	74.2%	810.8	73.5%	15	1.9%	2,380.5	
Platform fee	321.6	30.0%	329.1	29.8%	8	2.3%	948.6	Only variable cost (same as 30% for each platform)
Marketing cost	133.3	12.4%	142.4	12.9%	9	6.8%	414.2	Increased DUG marketing costs
Royalty	53.9	5.0%	54.9	5.0%	1	1.9%	127.6	DDI royalty incurred
Amortization expense	81.6	7.6%	84.1	7.6%	3	3.1%	196.7	Amortization expenses of intangible assets due to M&A are ₩2.7bn per month
Labor cost	138.7	12.9%	126.4	11.5%	(12)	-8.9%	386.0	Reduction effect of efficient HR management
Other operating expenses	66.8	6.2%	73.9	6.7%	7	10.6%	307.4	
Operating income	276.1	25.8%	292.9	26.5%	17	6.1%	813.0	
EBITDA	361.4	33.7%	378.1	34.3%	17	4.6%	1,023.0	

1) DUG Monthly Game Payment Trends and Key Indicators

- **Q/Q payment growth of 12.0%** due to growth of DUC and T5 (30% increase in payment amount in December compared to July)
- Expansion of marketing, **DAU increased to \$993K in Dec. ARPU is \$0.48** due to payment efficiency

Monthly Game Payment * Trends

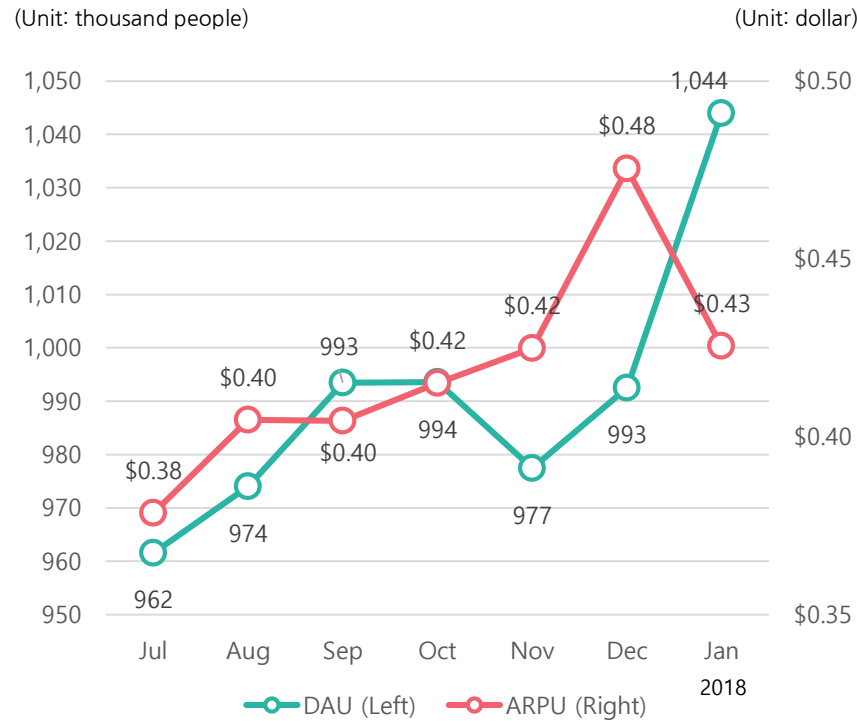
(Unit: thousand dollar)



- 4Q Sales Portion Recorded
Mob 67 : Web 33, the growth is centered on mobile.

DAU* and ARPU** Trends

(Unit: thousand people)



* DAU : Daily Active Users

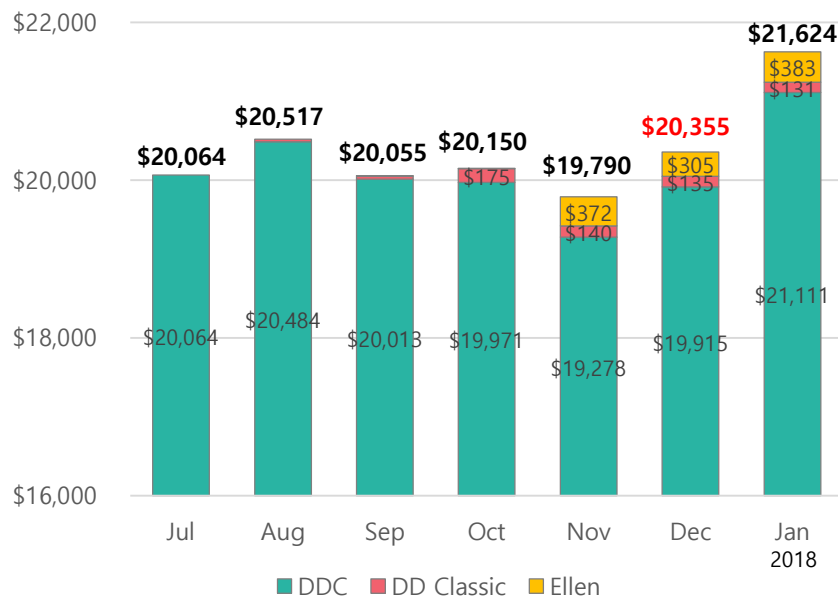
** ARPU : Average Revenue Per User

2) DDI Monthly Game Payment Trends and Key Indicators

- 4Q payment maintained Q/Q despite marketing decline (New DDC is under development)
- January payment **increased 6.3% from last month and DAU increased to 1.38mn** (IGT popular slots porting effect)

Monthly Game Payment Trends

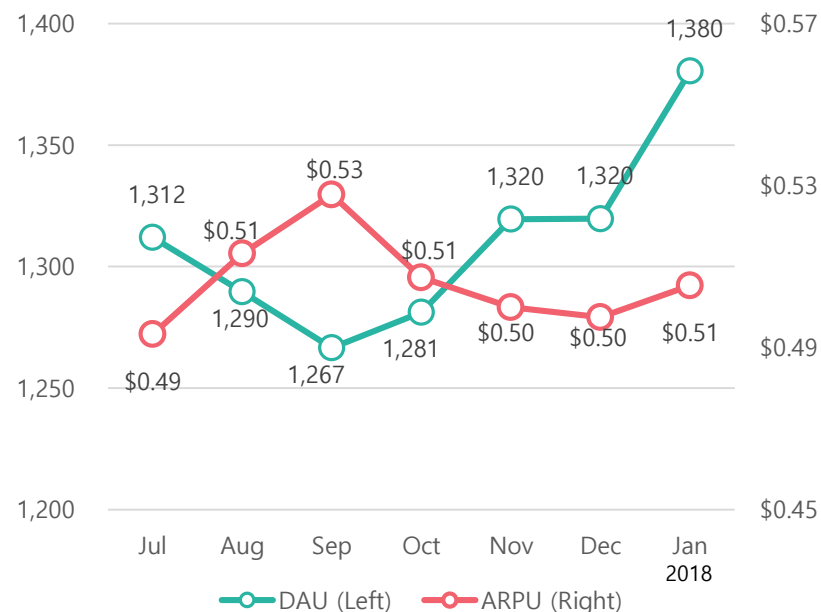
(Unit: thousand dollar)



DAU and ARPU Trends

(Unit: thousand people)

(Unit: dollar)



➤ New Slot 'ICY WILDS'

- 1) IGT's popular slot for ice princess and ice background
- 2) DDC launch date : January 19, 2018

3) 4Q DUG and DDI Market Competition Status

- DUG recorded a Q/Q growth rate of 12% in 4Q, achieved **overwhelming first place** (Market average growth rate 3.1%)
- Expanding global market share** growing both in mobile(12.2%) and web(11.9%)

Top 10 growth rates by platform

4Q total Q/Q growth rate ranking

Rank	Company	% q/q
1	DoubleU	12.0%
2	A	6.6%
3	B	5.9%
4	C	1.2%
5	D	0.2%
6	E	0.0%
7	F	0.0%
8	G	-0.5%
9	DoubleDown	-0.6%
10	H	-2.2%
Total	Market average	3.1%

4Q mob Q/Q growth rate ranking

Rank	Company	% q/q
1	DoubleU	12.2%
2	A	8.1%
3	B	4.5%
4	DoubleDown	1.5%
5	C	1.5%
6	D	0.6%
7	E	0.0%
8	F	-0.6%
9	G	-1.3%
10	H	-3.0%
Mob	Market average	3.9%

4Q web Q/Q growth rate ranking

Rank	Company	% q/q
1	DoubleU	11.9%
2	A	7.8%
3	B	1.1%
4	C	0.4%
5	D	0.0%
6	E	0.0%
7	F	-2.1%
8	G	-2.1%
9	DoubleDown	-3.8%
10	H	-8.3%
Web	Market average	0.2%

(Source: Eilers & Krejcik Gaming, LLC 17.4Q, DoubleU Games)

1) Plan to Launch New Version of DDC

- DDC **server side replacement completed (Jan.)**.
Plan to **launch new DDC (client replacement) in early Apr.**
- DDC new version will introduce **1. New Feature 2. HIT Slots 3. Personalized service**

New version of DDC development

Current DDC Main Screen



Current DUC Main Screen



New Contents



DUC HIT Slots



Personalized service



2) Renewal and Marketing Expansion — targeting users and region expansion

- With new version of DDC, **planning to marketing for 4.3 million key lost users**
- Expand sales area that North America (89%) to **Europe and Australia**

Marketing target (key lost users)

Total download : 90,574,854

1st target : Inactive Payers: 2,145,429

- Inactive Payers : EX-Payers

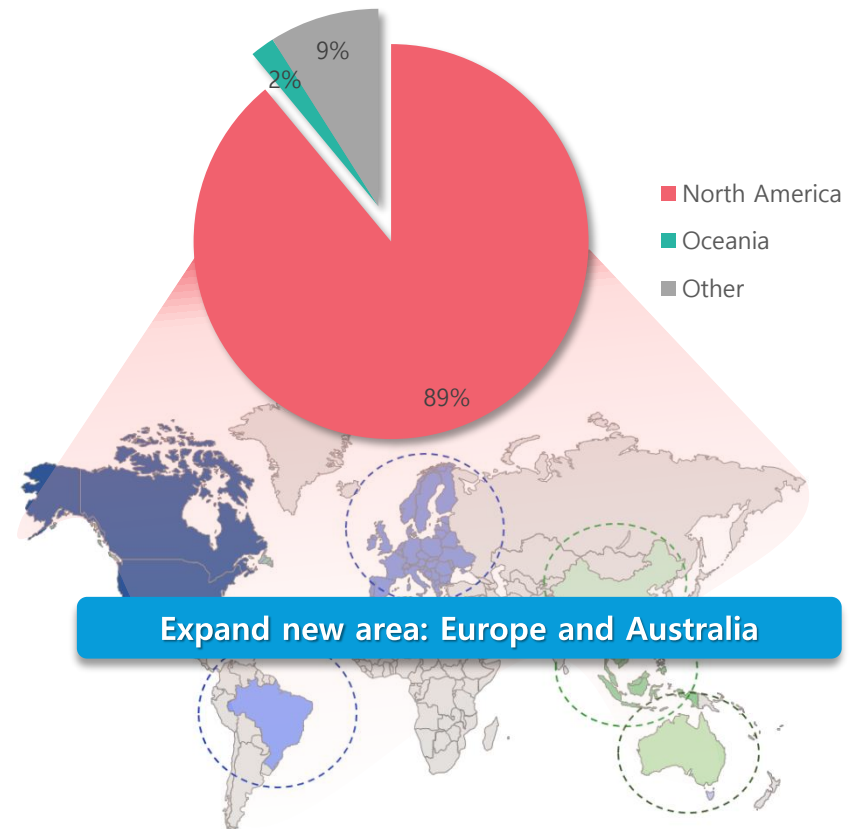
[Core customers who have payment experience in DDC]

2nd target : Active Non-Payers: 2,223,525

- Active Non-Payers : Non-Payers, Visit within 30 days O

[Active Player who has recently visited DDC]

Region expansion (to EUROPE, Oceania)



3) Settle down of New 'Ellen Slot' and DD Classic'

- 'Ellen Slot' achieved **\$680K payment for 2 months** based on IP competitiveness
- **Continuous marketing in conjunction with 'Ellen Show' promotion** such as promotion of Ellen's 60th birthday

Payment trend of new games



Ellen Slot and Ellen Show Promotion Video



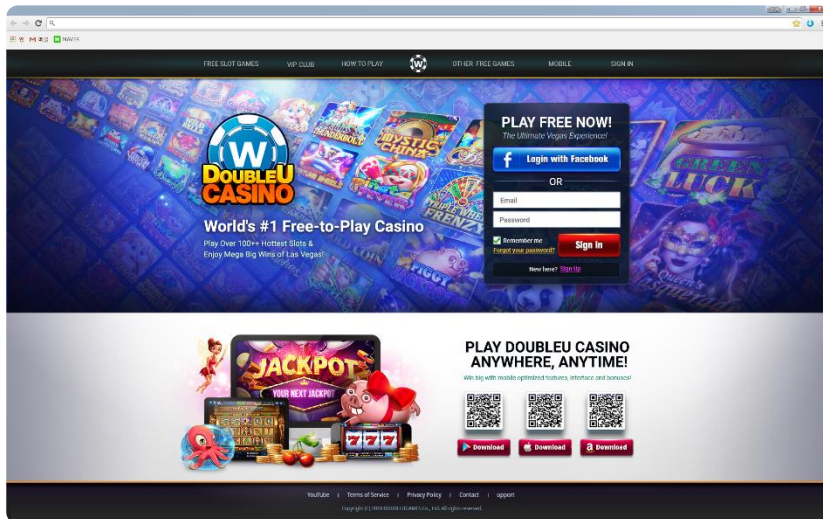
1) Start DUC web service and expand T5 marketing

- Improving sales and profitability through **DUC web version** (Reducing platform fees)
- Planning to **increase marketing budget and strengthen cross promotion with DUC** as T5's payment indicator increase has been confirmed

DUC's own web service

DUC New web version launching

Launch date : **scheduled for the end of February 2018**
 Expected effect: Increase sales by adding own web platform
 - **Induction of direct influx of customers** and profitability enhancement through search advertising



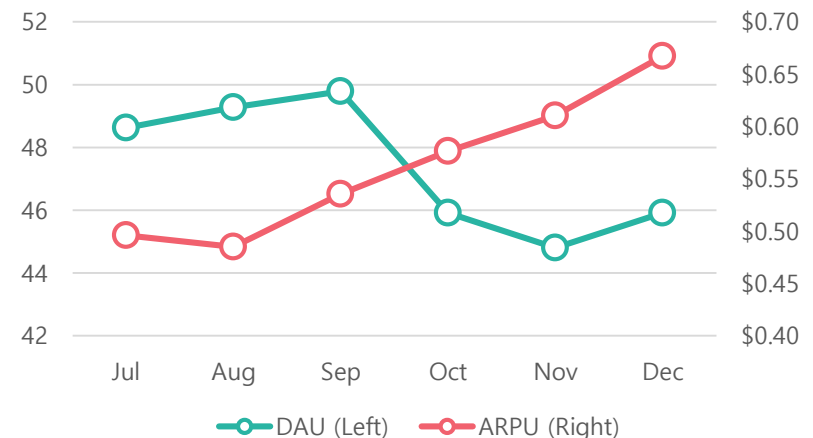
Expand T5 marketing

T5 Strengthen marketing

Strengthen marketing can be possible due to continuous improvement of payment indicator (PU, ARPPU)
 - 10~20% increase compared to total marketing resources (currently less than 10%)
 - Increasing cross promotion with DUC

(Unit: thousand people)

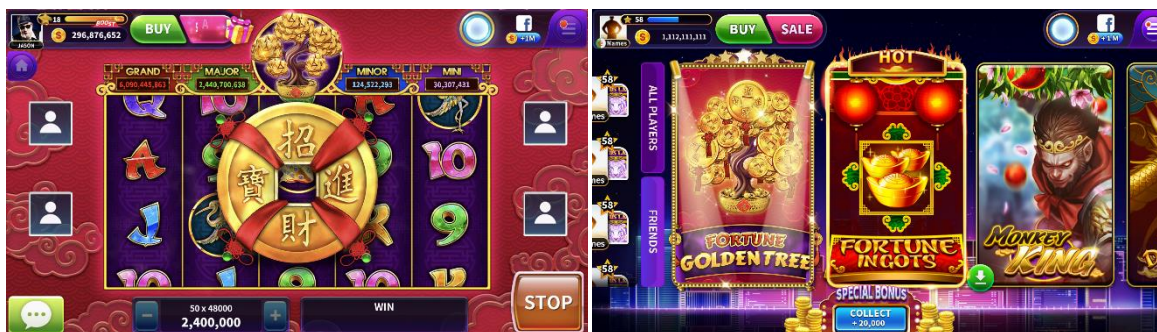
(Unit: dollar)



2) Enter to Asian social casino market

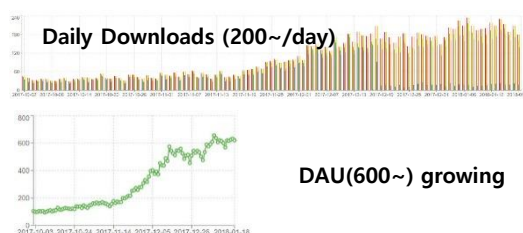
- Plan to **marketing of 'Double Fortune Casino' in Taiwan** in 2Q (partnered with local publisher)
- Target to **reach top 10 in Taiwan market** in the 2nd half 2018
- (Expect additional sales of about 20 billion won per year)

Strategy to enter the Asian social casino market



2017 4Q (Completed)

- DFC Improvement
 - 1) Game weight lightening and network efficiency
 - 2) Developing slot games (more than 10)



2018 1st half plan

- 1st half
 - Feb: Advancing BM in game
 - March: Adding game features (Linked Progressive)
 - **Marketing in Taiwan (Apr.)**
 - ➔ **S, G (Taiwan)**
 - **iOS launching**
- 2nd half
 - **Entering Top 10 in Taiwan (Goal)**
 - **DAU 35,000 (Goal)**

Taiwan Android sales ranking (As of January 1)

1	天堂M	GAMANIA	
2	RO仙境傳說:守護永恆的愛	Gravity Corporation	
3	星城Online	Wanin	Social Casino Approximately \$ 20M payment in 2017
4	Lineage2 Revolution	Netmarble	
5	Pokémon GO	Niantic	
6	老子有錢	GalaxyOnline	Social Casino
7	Let's Vegas Slots	Userjoy	Social Casino
8	로드 모바일	IGG	
9	클래시 오브 킹즈 (Clash ...	Elex Technology	
10	陰陽師Onmyoji - 和風幻...	Mamba Interactive	

(Source: App annie)

3) Launched Strategy Genre 'Undead Nation'

- Soft launch, **more than 7,000 user acquisition** and **a high retention rate (top 10)**
- Advancement of the game and will be **feature in Facebook** at the end of February.
Plan to soft launch of mobile version in 2Q

Project Z : Undead Nation : Last Shelter

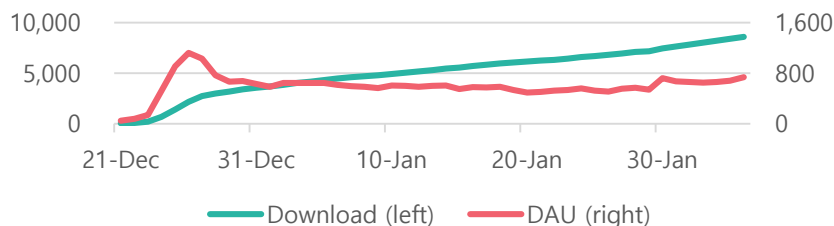


Soft launch result

More than 7,000 natural acquisition over 5 weeks (no costs)

Developed competitive user retention index

- Retention of the **top 12th~14th rank**
in the North American strategy game



Service improvement plan

- **Large-scale user acquisition plan for Facebook**
game room at the end of February
- Improving in-game balance and adding new units
- Strengthening payment element content

Mobile launching plan

- Schedule: Early June 2018 (plan) / Region: Canada

1) Interest costs reduction effect

- **Decrease in interest cost by ₩1.7bn annually** through the repayment of ₩43bn in 2017
- When the BW call option is exercised, **interest cost(approximately ₩6.4bn) can be reduced annually**

Repayment of the acquisition financing

2017 Repayment history

Type		Price	Interest rate (year)	Interest (annual)
Total acquisition financing		₩300bn	4%	₩12bn
17.2H	Repayment amount	₩43bn	4%	₩1.7bn
	balance	₩257bn	4%	₩10.3bn

2018 repayment plan

- The principal will be repaid at a quarterly ₩20bn
 - Continuous annual interest cost savings
- Plan to refinance acquisition financing (May) - Interest cost may fluctuate

BW (₩90bn) call option exercise (tentative)

BW interest expense in 2018

Type		Interest rate (year)	Interest (annual)
BW Total (₩90bn)	Coupon	2.5%	₩2.25bn
	Costs for accounting purpose		₩4.14bn
Total interest for accounting purpose			₩6.39bn

Effect of call option exercise

- Call option exercise available after May of this year
- By exercising the call option, it is possible to **save annually about 6.39 billion won accounting cost for accounting purpose**

2) US corporate tax cut effect

- **TAX savings of around ₩7.0bn in 2018** due to the US corporate tax cut (35%→21%)
- The effective corporate tax rate, which is actually cash out, **decreased approximately from 4.6% to 2.9%**

US tax cut

US corporate tax cut

- Trump signed the tax bill

The tax bill signed December 22, 2017

The largest tax cut in 31 years since 1986

- Final corporate tax rate

Down from 35% to 21%

Corporate tax cut effect

(Unit: thousand dollar)

	Corporate tax rate (35%)	Corporate tax rate (21%)	Saving Tax Amount
Cash-Out	\$2,144	\$1,339	\$805
Deferred corporate tax	\$6,448	\$3,869	\$2,579
Corporate tax amount (7months)	\$8,592	\$5,208	\$3,384
Annual conversion (12months)	\$14,729	\$8,927	\$5,802
Note	A	B	C=A-B

1. Corporate tax costs (Cash-Out)

(Unit: thousand dollar)

Type	Before change	After change	Note
EBITDA	\$46,166	\$46,166	A
PPA amortization expense	(\$36,027)	(\$36,027)	B(Quarterly amortization effect)
Interest cost and other expense	(\$4,318)	(\$4,318)	C
Taxation standard	\$5,820	\$5,820	D=A-B-C
Corporate tax rate	36.8%	23.0%	E
Corporate tax costs (Cash out)	\$2,144	\$1,339	F=D*E
Corporate tax costs (Cash out)/EBITDA	4.6%	2.9%	G=F/A

(Duration: Jun. ~ Dec. 2017 / 7 months)

2. Corporate tax costs (Deferred corporate tax)

(Unit: thousand dollar)

Type	Before change	After change	Note
Amortization (Taxation)	\$36,027	\$36,027	A (Goodwill)
Amortization (Accounting)	\$17,604	\$17,604	B
Difference	\$18,423	\$18,423	C=A-B
Corporate tax rate	35.0%	21.0%	D
Deferred corporate tax	\$6,448	\$3,869	E=C*D

(Duration: Jun. ~ Dec. 2017 / 7 months)

Consolidated financial statement



17.4Q Consolidated Income Statement

(Unit: 100 million won)

Type	16 4Q	17 1Q	17 2Q	17 3Q	17 4Q	17 4Q accumulate	Note
Operating revenue	422	414	604	1,072	1,104	3,193	
Operating cost	260	246	528	796	811	2,381	
Platform fee	127	124	181	322	329	949	
Marketing cost	38	50	88	133	142	414	
Stock-based compensation	26	5	4	4	1	13	
Royalty	-	-	19	54	55	128	
Amortization expense	1	1	26	82	84	197	
Other expenses	69	66	103	202	199	573	
Temporary cost (M&A)	-	-	107	-	-	107	
Operating income	163	168	76	276	293	813	
EBITDA	189	174	106	361	378	1,023	
Non-operating income	51	15	67	38	(61)	57	
Interest income	14	12	14	10	5	33	Reduced deposits
Foreign currency effect	37	3	53	29	(66)	24	(*1) Foreign currency loss
Non-operating Cost	(27)	60	89	93	244	484	
Interest cost	-	-	97	90	87	207	DDI acquisition finance interest expense
Foreign currency effect	(30)	59	(7)	2	153	207	(*1) Foreign currency loss
Other expenses	2	1	(1)	1	4	70	
Equity-method loss & others	-	-	-	-	-	-	
Profit before tax	241	123	54	221	(12)	386	
Taxes	27	8	(8)	75	(35)	38	(*2) Tax adjustment
Net income	215	114	62	148	24	348	
Ownership of parent company	219	111	62	148	24	345	
Non-controlling interest	(4)	3	-	-	-	3	
Operating income %	38.5%	40.5%	12.6%	25.8%	26.5%	28.8%	
EBITDA %	44.8%	42.0%	17.5%	33.7%	34.3%	35.4%	

(*1) (Foreign exchange loss) Loss on valuation of foreign exchange related to exchange rate depreciation
(3Q 1,146.70 → 4Q 1,071.40, ↓ 6.6%)

- T8G loan(\$228M) Foreign exchange loss (₩19.5bn)
- DUG loss on translation of financial instruments (₩2.3bn)

(*2) (Tax adjustment) Effect of deferred tax asset due to exchange rate depreciation

- Deferred tax assets related to DUG equity method loss due to foreign exchange loss of T8G loan

Note) Consolidated subsidiaries: DDragon Games (100%), Diamond Games (100%) and The8Games (100%)

Payments by game

Payments by game

Game	16.4Q	17.1Q	17.2Q	17.3Q	17.4Q
DoubleDown Casino	\$0	\$0	\$19,976,653	\$60,561,204	\$59,164,623
DoubleDown Classic	\$0	\$0	\$0	\$73,994	\$450,006
Ellen Slots	\$0	\$0	\$0	\$1,183	\$680,474
DoubleU Casino	\$32,994,214	\$32,721,064	\$30,245,312	\$31,714,248	\$35,687,619
Take5	\$2,252,202	\$2,465,636	\$2,361,884	\$2,288,041	\$2,590,133
DoubleU Bingo	\$1,387,054	\$886,300	\$827,750	\$762,121	\$686,561
Other slots	\$41,243	\$202,973	\$165,125	\$37,270	\$19,629
Total	\$36,674,713	\$36,275,973	\$53,576,724	\$95,438,061	\$99,279,044