

GIGAMEDIA Ltd  
Form 20-F  
April 29, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D. C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE  
ACT OF 1934  
OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF  
1934  
OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT  
OF 1934

Commission File Number: 000-30540

GIGAMEDIA LIMITED

(Exact name of registrant as specified in its charter)

N/A

(Translation of Registrant's name into English)

REPUBLIC OF SINGAPORE

(Jurisdiction of incorporation or organization)

8 TH FLOOR, NO. 22, LANE 407, SECTION 2 TIDING BOULEVARD, TAIPEI, TAIWAN, R.O.C.

(Address of principal executive offices)

CHENG-MING HUANG, Chief Executive Officer

8 TH FLOOR, NO. 22, LANE 407, SECTION 2 TIDING BOULEVARD, TAIPEI, TAIWAN, R.O.C.

Tel: 886-2-2656-8000; Fax: 886-2-2656-8003

Securities registered or to be registered pursuant to Section 12(b) of the Exchange Act:

Title of Each Class Name of Each Exchange on Which Registered  
Ordinary Shares The Nasdaq Stock Market LLC

Securities registered or to be registered pursuant to Section 12(g) of the Exchange Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

11,052,235 ordinary shares

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this annual report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note — Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.:

Large accelerated filer Accelerated filer  
Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check

mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial

accounting standards† provided pursuant to Section 13(a) of the Exchange Act.

† The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards

Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in

this filing:

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued Other

by the International Accounting Standards Board

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No



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## CERTAIN TERMS AND CONVENTIONS

In this annual report, all references to

- (i) “we,” “us,” “our,” “our Company” or “GigaMedia” are to GigaMedia Limited and, unless the context requires otherwise, its subsidiaries, or where the context refers to any time prior to the incorporation of any of its subsidiaries, the businesses which predecessors of the present subsidiaries were engaged in and which were subsequently assumed by such subsidiaries;
- (ii) “Shares” are to ordinary shares of our Company;
- (iii) “East Gate” are to East Gate Media Contents & Technology Fund L.P., a partnership organized under the laws of the Republic of Korea.
- (iv) “FunTown” are to our digital entertainment service business operated through our two operating subsidiaries, Hoshin GigaMedia and FunTown World Limited;
- (v) “GigaCloud” are to the cloud computing services operated through GigaMedia Cloud;
- (vi) “GigaMedia Cloud” are to GigaMedia Cloud Services Co. Ltd., a wholly owned subsidiary incorporated under the laws of Taiwan;
- (vii) “Hoshin GigaMedia” are to Hoshin GigaMedia Center Inc., a company incorporated under the laws of Taiwan, Republic of China, (“Taiwan” or “R.O.C.”);
- (viii) “PerfectPairs” are to PerfectPairs Gaming Co., Ltd., a company incorporated under the laws of Taiwan that develops and publishes mobile games and apps; and

For the purpose of this annual report only, geographical references to “China” and the “PRC” are to the People’s Republic of China and do not include Taiwan, the Hong Kong Special Administrative Region (“Hong Kong”) or the Macau Special Administrative Region (“Macau”). Except if the context otherwise requires, and for the purpose of this annual report only, references to “Greater China” include the PRC, Taiwan, Hong Kong and Macau. References to “Korea” or “South Korea” are to the Republic of Korea.

All references in this annual report to “U.S. dollar,” “\$” or “US\$” are to the legal currency of the United States; all references to “NT dollar” or “NT\$” are to the legal currency of Taiwan; all references to “RMB,” “Rmb” or “Renminbi” are to the legal currency of the PRC; all references to “Hong Kong dollar” or “HK\$” are to the legal currency of Hong Kong; all references to “Korean won” or “KRW” are to the legal currency of the Republic of Korea and all references to “Singapore dollar” or “S\$” are to the legal currency of the Republic of Singapore.

We have approximated certain numbers in this annual report to their closest round numbers or a given number of decimal places. Due to rounding, figures shown as totals in tables may not be arithmetic aggregations of the figures preceding them.

## DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This annual report includes “forward-looking statements” within the meaning of, and intended to qualify for the safe harbor from liability established by, the United States Private Securities Litigation Reform Act of 1995. These statements, which are not statements of historical fact, may consist of or contain estimates, assumptions, projections and/or expectations regarding future events, which may or may not occur. These statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Some of the risks are listed under Item 3, “Key Information — D. Risk Factors” and elsewhere in this annual report. In some cases, you can identify these forward-looking statements by words such as “aim,” “anticipate,” “believe,” “consider,” “continue,” “estimate,” “expect,” “forecast,” “going forward,” “intend,” “ought to,” “predict,” “project,” “propose,” “seek,” “can,” “could,” “may,” “might,” “will,” “would,” “should,” “shall,” “is likely to” or similar terms, including their negatives. These forward-looking statements include, without limitation, statements relating to:

- our business plan and strategies;
- our future business development and potential financial condition, results of operations and other projected financial information;
- our ability to manage current and potential future growth;
- expected continued acceptance of our revenue model;

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- our plans for strategic partnerships, licenses and alliances;
- our acquisition and strategic investment, and our ability to successfully integrate any past, current, or future acquisitions into our operations;
- our ability to protect our intellectual property rights and the security of our customers' information;
- the launch of new digital entertainment services according to our timetable;
- expected continued acceptance of our digital entertainment services, including expected growth of the digital entertainment industry, and consumer preferences for our products and services;
- the in-house development of new digital entertainment products;
- our plans to license additional digital entertainment products from third parties, and the launch of these new products, including the timing of any such development, licenses or launches, in various geographic markets;
- our ability to maintain and strengthen our position as one of the largest online MahJong operators in Taiwan;
- the potential entry of new competitors in any of our business lines;
- the outcome of ongoing, or any future, litigation or arbitration; and
- our corporate classification by various governmental entities.

These forward-looking statements are based on our own information and on information from other sources we believe to be reliable. Our actual results may differ materially from those expressed or implied by these forward-looking statements as a result of risk factors and other factors noted throughout this annual report, including those described under Item 3, "Key Information — D. Risk Factors" and those detailed from time to time in other filings with the United States Securities and Exchange Commission (the "SEC"). We do not guarantee that the transactions and events described in this annual report will happen as described or that they will happen at all. We undertake no obligation to update or revise any forward-looking statements to reflect events or circumstances after the date of this annual report or to reflect the occurrence of unanticipated events. Whether actual results will conform to our expectations and predictions is subject to a number of risks and uncertainties, many of which are beyond our control, and reflect future business decisions that are subject to change. Given this level of uncertainty, you are advised not to place undue reliance on such forward-looking statements.

## PART I

### ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable, but see Item 6, "Directors, Senior Management and Employees — A. Directors and Senior Management" in this annual report.

### ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

### ITEM 3. KEY INFORMATION

#### Exchange Rates

Assets and liabilities reported in our consolidated balance sheets denominated in currencies other than U.S. dollars are translated into U.S. dollars using year-end exchange rates. Income and expense items reported in our consolidated statements of operations denominated in currencies other than U.S. dollars are translated into U.S. dollars using average exchange rates. Certain other operating financial information denominated in currencies other than U.S. dollars, not included in our consolidated financial statements and provided in this annual report, are translated using average exchange rates. We make no representation that any currencies, other than U.S. dollars, could be converted to U.S. dollars at such rate or any particular rates.





## A. Selected Financial Data

The following selected consolidated balance sheet data as of December 31, 2017 and 2018 and the selected consolidated statement of operations data for the years ended December 31, 2016, 2017 and 2018 have been derived from our audited consolidated financial statements included in Item 18 in this annual report. The selected consolidated balance sheet data as of December 31, 2014, 2015 and 2016, and the selected consolidated statement of operations data for the years ended December 31, 2014 and 2015 have been derived from our audited consolidated financial statements for the years ended December 31, 2014 and 2015, which are not included in this annual report. The consolidated financial statements have been prepared and presented in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. You should read the following selected consolidated financial data in conjunction with Item 5, "Operating and Financial Review and Prospects," and the consolidated financial statements and the accompanying notes to those statements included in this annual report.

For the Years Ended December 31,

(in thousands US\$, except for per share data)

	2014	2015	2016	2017	2018
	(As adjusted*)	(As adjusted*)	(As adjusted*)		
<b>CONSOLIDATED STATEMENTS OF OPERATIONS DATA:</b>					
<b>OPERATING REVENUES</b>					
Digital entertainment service revenues	\$8,199	\$8,545	\$8,971	\$11,596	\$7,101
Other revenues	1,580	1,706	—	—	—
Total operating revenues	9,779	10,251	8,971	11,596	7,101
<b>COSTS OF REVENUES</b>					
Cost of digital entertainment service revenues	(6,010 )	(7,018 )	(4,138 )	(5,098 )	(3,585 )
Cost of other revenues	(1,825 )	(1,871 )	—	—	—
Total costs of revenues	(7,835 )	(8,889 )	(4,138 )	(5,098 )	(3,585 )
<b>GROSS PROFIT</b>	1,944	1,362	4,833	6,498	3,516
<b>OPERATING EXPENSES</b>					
Product development and engineering expenses	(892 )	(688 )	(1,045 )	(1,072 )	(1,091 )
Selling and marketing expenses	(6,708 )	(8,655 )	(5,513 )	(3,993 )	(3,297 )
General and administrative expenses	(6,592 )	(5,817 )	(3,458 )	(3,528 )	(3,684 )
Impairment loss on property, plant, and equipment	(28 )	(60 )	(471 )	—	—
Impairment loss on intangible assets	(115 )	(5 )	(57 )	—	—
Impairment loss on prepaid licensing and royalty fees	(1,259 )	(4,187 )	(1,386 )	—	(244 )
Termination of proposed acquisition	—	(2,000 )	—	—	—
Gain on termination of licensing agreement	—	—	—	1,732	—
Other	(37 )	(3 )	(35 )	(127 )	(23 )
Total operating expense	(15,631)	(21,415)	(11,965)	(6,988)	(8,339)
Loss from operations	(13,473)	(20,053)	(7,132 )	(490 )	(4,823)
Net loss on equity investments	(531 )	(600 )	(1,731 )	(24 )	—
Income tax benefit	73	414	1,149	1,671	—
Net income (loss)	(4,990 )	(2,288 )	(6,066 )	1,086	(3,193)
Less: Net (income) loss attributable to the noncontrolling interest	(165 )	45	—	—	—

Net income (loss) attributable to shareholders of GigaMedia	\$ (5,155 )	\$ (2,243 )	\$ (6,066 )	\$ 1,086	\$ (3,193)
Earnings (loss) per share (in dollars):					
Basic and diluted	\$ (0.48 )	\$ (0.20 )	\$ (0.55 )	\$ 0.10	\$ (0.29 )

\*: The selected consolidated statements of operations for the years ended December 31, 2014, 2015 and 2016 were retrospectively adjusted to reflect our Company's election to early adopt the accounting updated of ASU No. 2017-07, Compensation-Retirement Benefits. Accordingly, all components of net periodic pension costs that are other than the service cost, amounting to income of US\$214 thousand, US\$58 thousand and US\$2 thousand, respectively, for 2014, 2015 and 2016, were reclassified from general and administrative expenses to non-operating income (expense) –other. See Note 1 to our audited consolidated financial statements included in this annual report for more information.

There were no dividends declared in 2014, 2015, 2016, 2017 and 2018.

As of December 31,

(US dollars in thousands except for number of issued shares)

	2014	2015	2016	2017	2018
<b>CONSOLIDATED BALANCE SHEET DATA:</b>					
Total current assets	\$91,158	\$74,498	\$68,882	\$65,511	\$60,595
Property, plant and equipment-net	1,663	1,391	7	158	121
Intangible assets-net	222	88	—	3	38
Total assets	108,304	81,195	70,327	66,413	61,445
Total current liabilities	27,337	13,482	8,998	5,048	3,620
Total GigaMedia's shareholders' equity	79,019	65,991	59,658	61,365	58,172
Common shares, no par value, and additional paid-in capital	308,682	308,745	308,754	308,747	308,750
Number of issued shares (in thousands)*	11,052*	11,052	11,052	11,052	11,052
*: We executed reverse splits of the issued and outstanding shares by a ratio of five to one on December 16, 2015.					

#### B. Capitalization and Indebtedness

Not applicable.

#### C. Reasons for the Offer and Use of Proceeds

Not applicable.

#### D. Risk Factors

##### Risks Related to Our Business and Industries

We may face litigation risks and regulatory disputes in the course of our business.

In the ordinary course of our business, claims and disputes involving business partners, customers, regulatory authorities and other parties may be brought against us and by us in connection with our business. Claims may be brought against us for alleged defective or incomplete work, breaches of contractual obligations, infringement of intellectual property or otherwise. Such claims can involve actual damages and liquidated damages and could be expensive to defend, even if we believe that they are without merit. If found to be liable, we would have to incur a charge against earnings to the extent a reserve had not been established for the matter in our accounts, or to the extent the claims were not sufficiently covered by our insurance. The defense of such claims and any adverse ruling against us could have an adverse impact on our business, financial condition and results of operations.

We may not be successful in operating and improving our existing digital entertainment services to satisfy the changing demands and preferences of consumers.

The level of demand and market acceptance of our existing digital entertainment services is subject to a high degree of uncertainty. Our future operating results will depend on numerous factors, many of which are beyond our control. These factors include:

- the popularity of existing and new digital entertainment services operated by us;
- the introduction of new digital entertainment services by us or third parties, competing with or replacing our existing services;
- general economic conditions, particularly economic conditions adversely affecting discretionary consumer spending;
- changes in our customer demands and preferences;
- regulatory and other risks associated with our operations in Taiwan and Hong Kong;
- the availability of other forms of amusement and entertainment; and
- critical reviews and public tastes and preferences, all of which change rapidly and cannot be predicted.

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Our ability to plan for product development and distribution and promotional activities will be significantly affected by how well we anticipate and adapt to relatively rapid changes in consumer tastes and preferences. Currently, a substantial portion of our digital entertainment services revenue is derived from revenues from PC-based online games including MahJong games and other casual games offered in Taiwan and Hong Kong by FunTown and the licensed massively multi-player online (“MMO”) games such as Tales Runner, a sports game, Dragon, a multiplayer role-playing game, and Yume100, a single player role-playing game. The sub-genre of multi-player role-playing online games (“MMORPG”) is the most popular type of MMO. In recent years, revenues from our PC-based games have been in decline, reflecting the overall shift in player preferences away from PC-based games to browser-based games and mobile games. This decline in the popularity of PC-based online games, and declines in the popularity of online games in general, is likely to adversely affect our business, financial condition and results of operations. To maintain competitiveness of our digital entertainment services, we must regularly invest in enhancing, improving, expanding or upgrading our services. If we fail to do so, revenues generated from our existing services will likely decline.

As our services are currently accessed primarily through PC and, increasingly, mobile devices, successful development of services for such devices will be imperative if we are to maintain or increase our revenues, and our inability to do so may result in lower growth of or a decline in revenues.

Devices other than personal computers, such as mobile phones and tablets, are used increasingly to access the Internet. We believe that, for our business to be successful, we will need to develop versions of our existing digital entertainment offerings, our pipeline offerings and any future offerings that work well with such devices. Manufacturers of such devices may establish restrictive conditions for developers of applications to be used on such devices, and as a result our offerings may not work well, or at all, on such devices. As new devices are released or updated, we may encounter problems in developing versions of our offerings for use on such devices and we may need to devote significant resources to the creation, support, and maintenance of games for such devices. If we are unable to successfully expand the types of devices on which our existing and future offerings are available, or if the versions of our offerings that we create for such devices do not function well or are not attractive to consumers, our revenues may fail to grow and may decline.

The digital entertainment industry is characterized by rapid technological change, and failure to respond quickly and effectively to new Internet technologies or standards may have a material adverse effect on our business.

The digital entertainment industry is evolving rapidly. Any new technologies or new standards may require increases in expenditures for development and operations. In addition, we use internally developed software systems that support nearly all aspects of our billing and payment transactions in our digital entertainment service business. All of our businesses may be adversely affected if we are unable to upgrade our systems effectively to accommodate future traffic levels, to avoid obsolescence or to successfully integrate any newly developed or acquired technology with our existing systems. Capacity constraints could cause unanticipated system disruptions and slower responses, which could adversely affect data transmission and service experience. These factors could, among other things, cause us to lose existing or potential users and existing or potential service development partners.

In operating our digital entertainment service business, we may fail to launch new products according to our timetable, and our new products may not be commercially successful.

In order for our digital entertainment service business strategy to succeed over time, we will need to license, acquire or develop new digital entertainment products that can generate additional revenue and further diversify our revenue sources. A number of factors, including technical difficulties, government approvals and licenses of intellectual property right required for launching new products, lack of sufficient development personnel and other resources, and adverse developments in our relationship with the licensors of our new licensed products could result in delay in launching our new products. Therefore, we cannot assure you that we will be able to meet our timetable for new

launches.

There are many factors that may adversely affect the popularity of our new products. For example, we may fail to anticipate and adapt to future technical trends and new business models, fail to satisfy consumer preferences and requirements, fail to effectively plan and organize marketing and promotion activities, fail to effectively detect and prevent programming errors or defects in the products, and fail to operate our new products at acceptable costs. We cannot assure you that our new products will gain market acceptance and become commercially successful. If we are not able to license, develop or acquire additional digital entertainment products that are commercially successful, our future revenues and profitability may decline.

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Our digital entertainment service business faces intense competition, which may adversely affect our revenues, profitability and planned business expansion.

The digital entertainment market is highly competitive. Online game operators in Taiwan and Hong Kong are currently our primary competitors. Our major competitors in Taiwan include Gamania Digital Entertainment Co., Ltd. (“Gamania”), Soft-World International Corporation (“Soft-World”), International Games System, Co., Ltd. (“IGS”), UserJoy Technology Co., Ltd. (“UserJoy”) and GodGame Inc. (“GodGame”). In addition, we compete for users against various offline amusement and entertainment, such as console games, arcade games and handheld games, as well as various other forms of traditional or online entertainment.

We expect more digital entertainment service providers to enter the markets where we operate, and a wider range of digital entertainment products to be introduced to these markets, given the relatively low entry barriers to the digital entertainment industry and the increasing popularity of Internet-based businesses. Our competitors vary in size and include private and public companies, many of which have greater financial, marketing and technical resources as well as name brand recognition. We intend to continue to enhance our market position through providing competitive products and quality services that meet market trends and users’ preferences, as well as strengthening sales effectiveness. As a result of the above, significant competition may reduce the number of our users or the growth rate of our user base, reduce the average hours spent on our services, or cause us to reduce usage fees. All of these competitive factors could have a material adverse effect on our business, financial condition and results of operations.

Our results of operations are subject to significant fluctuations. We have incurred operating and net losses in past years, and we may experience losses in the future.

Our revenues, expenses and results of operations have varied in the past and may fluctuate significantly in the future due to a variety of factors, many of which are beyond our control. In 2016, and 2018, we incurred operating losses of US\$7.1 million and US\$4.8 million as well as net losses of US\$6.1 million and US\$3.2 million, respectively. In 2017, we incurred an operating loss of US\$0.5 million but reported net income of US\$1.1 million. Our future profitability will depend to a great extent upon the performance of our digital entertainment service business. The key factors affecting our businesses include:

- our ability to retain existing users;
- attracting new users and maintaining user satisfaction;
- the pace of rolling out new offerings or updating existing ones by us or our competitors;
- the amount and timing of operating costs and capital expenditures relating to our business operations and expansion;
- seasonal trends in Internet use;
- price competition in the industry;
- regulatory and other risks associated from our operations in Taiwan and Hong Kong.

In addition, our operating expenses are based on our expectations of the future demand for our services and are relatively fixed in the short term. We may be unable to adjust spending quickly enough to offset any unexpected demand shortfall. A decrease in revenues in relation to our expenses could have a material and adverse effect on our business, results of operations and financial condition. You should not place undue reliance on year-to-year or quarter-to-quarter comparisons of our results of operations as indicators of our future performance and we cannot assure you that we will not experience operating or net losses in future periods.

Our business strategy, which contemplates growth through acquisitions and strategic investments, exposes us to significant risks.

We have pursued and may continue to pursue growth through acquisitions and strategic investments. Any acquisition or investment is subject to a number of risks. Such risks include the diversion of management time and resources,



disruption of our ongoing business, lack of familiarity with new markets, difficulties in supporting the acquired business, and dilution to existing stockholders if our common stock is issued in consideration for an acquisition or investment, incurring or assuming indebtedness or other liabilities in connection with an acquisition.

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We entered into multiple strategic alliances in the past and later recognized related impairment losses on investments and goodwill. We may incur debts in the future upon an acquisition or suffer losses related to impairment of these investments. We will continue to examine the merits, risks and feasibility of potential transactions, and expect to explore additional acquisition opportunities in the future. Such examination and exploration efforts, and any related discussions with third parties, may or may not lead to future acquisitions and investments. We may not be able to complete acquiring or investing transactions that we initiate. Our ability to grow through such acquisitions and investments will depend on many factors, including the availability of suitable acquisition candidates at an acceptable cost, our ability to reach agreement with acquisition candidates or investee companies on commercially reasonable terms, the availability of financing to complete transactions and our ability to obtain any required governmental approvals.

We also face challenges in integrating any acquired business. These challenges include eliminating redundant operations, facilities and systems, coordinating management and personnel, retaining key employees, managing different corporate cultures, maintaining the relationship with the suppliers, vendors and/or distributors of acquired businesses, and achieving cost reductions and cross-selling opportunities. There can be no assurance that we will be able to successfully integrate all aspects of acquired businesses. The process of integrating the acquired business may disrupt our business and divert our resources, including the resources of our management. In addition, the benefits of an acquisition or investment transaction may take considerable time to be fully realized and we cannot assure you that any particular acquisition or investment and the subsequent integration will produce the intended benefits.

Our business could suffer if we do not successfully manage current growth and potential future growth.

We are pursuing a number of growth strategies. Some of these strategies relate to services, products or markets in which we lack experience and expertise. Anticipated expansion of our operations will place a significant strain on our management, operation systems and resources. In addition to training and managing our workforce, we will need to continue to develop and improve our financial and management controls and our reporting systems and procedures, including those of acquired businesses. We cannot assure you that we will be able to effectively manage the growth of our operations, and any failure to do so may limit our future growth and materially and adversely affect our business, financial condition and results of operations.

Dependence on network suppliers may adversely affect our operating results.

Our success depends in part upon the capacity, reliability, and performance of our network infrastructure, including the capacity leased from our Internet bandwidth suppliers. We depend on these companies to provide uninterrupted and error-free service through their telecommunications networks. We exercise little control over these providers, which increases our vulnerability to problems with the services they provide. We have experienced and expect to continue to experience interruptions or delays in network service. Any failure on our part or the part of our third-party suppliers to achieve or maintain high data transmission capacity, reliability or performance could significantly reduce customer demand for our services and damage our business. As our customer base grows and their usage of telecommunications capacity increases, we will be required to make additional investments in our capacity to maintain adequate data transmission speeds, the availability of which may be limited or the cost of which may be on terms unacceptable to us. If adequate capacity is not available to us as our customers' usage increases, our network may be unable to achieve or maintain sufficiently high data transmission capacity, reliability or performance. In addition, our business would suffer if our network suppliers increased the prices for their services and we were unable to pass along the increased costs to our customers.

Our digital entertainment service business depends on the reliability of the network infrastructure and related services provided by ourselves and third parties, which is subject to physical, technological, security and other risks. We could suffer a loss of revenue and increased costs, exposure to significant liability, reputational harm and other serious negative consequences if we sustain damages, cyber-attacks or other data security breaches that disrupt our operations or result in the dissemination of proprietary or confidential information about us or our customers or other third parties.

The development and operation of our online networks are subject to physical, technological, security and other risks which may result in interruption in service or reduced capacity. These risks include physical damage, power loss, telecommunications failure, capacity limitation, hardware or software failures or defects and breaches of physical and cybersecurity by computer viruses, system break-ins or otherwise. An increase in the volume of usage of online services could strain the capacity of the software and hardware employed to prevent and identify such failures, breaches and attacks, which could result in slower response time or system failures. In particular, our industry has witnessed an increase in the number, intensity and sophistication of cybersecurity incidents caused by hackers and other malicious actors such as foreign governments, criminals, hacktivists, terrorists and insider threats. Hackers and other malicious actors may be able to penetrate our network security and misappropriate or compromise our confidential, sensitive, personal or proprietary information, or that of third parties, and engage in the unauthorized use or dissemination of such information. They may be able to create system disruptions, or cause shutdowns. Hackers and other malicious actors may be able to develop and deploy viruses, worms, ransomware and other malicious software programs that attack our products or otherwise exploit any security vulnerabilities of our systems. In addition, sophisticated hardware and operating system software and applications that we procure from third parties may contain defects in design or manufacture, including “bugs,” cybersecurity vulnerabilities and other problems that could unexpectedly interfere with the operation or security of our systems.

We have a variety of backup servers at our primary site to deal with possible system failures. However, we do not have redundant facilities in the event of an emergency. The occurrence of any of these events could result in interruptions, delays or cessation in service to users of our online services, which could have a material adverse effect on our business and results of operations. We may be required to expend significant capital or other resources to protect against the threat of security breaches and attacks or to alleviate problems caused by such actions, including the following:

- expenses to rectify the consequences of the damage, security breach or cyber attack;
- liability for stolen assets or leaked information;
- costs of repairing damage to our systems;
- lost revenue and income resulting from any system downtime caused by such breach or attack;
- loss of competitive advantage if our proprietary information is obtained by competitors as a result of such breach or attack;
- increased costs of cyber security protection;
- costs of incentives we may be required to offer to our customers or business partners to retain their business; and
- damage to our reputation.

In addition, any compromise of security from a security breach or cyber attack could deter customers or business partners from entering into transactions that involve providing confidential information to us. As a result, any compromise to the security of our systems could have a material adverse effect on our business, reputation, financial condition, and operating results.

While we have implemented industry-standard physical and cybersecurity measures, our network may still be vulnerable to unauthorized access, computer viruses, denial of service and other disruptive problems. For example, in

recent years, we have detected and mitigated a few incidents of denial-of-service attack against network providers which affected latency of connections to our games, and those incidents did not result in significant financial impact on our operations and financial results. All in all, we have experienced in the past, and may experience in the future, security breaches or attacks. There can be no assurance that any measures implemented will not be circumvented in the future.

The board of directors oversees our cyber risk management by periodical review of a summary for recent cybersecurity incidents and the execution of our risk management program, and prompt assessment, if a major and urgent incident occurred, of our countermeasures and mitigation actions.

Our business is also vulnerable to delays or interruptions due to our reliance on infrastructure and related services provided by third parties. End-users of our offerings depend on Internet Service Providers ("ISPs") and our system infrastructure for access to the Internet games and services we offer. Some of these services have experienced service outages in the past and could experience service outages, delays and other difficulties due to system failures, stability or interruption. For example, prior earthquakes in Taiwan, Indonesia and Japan have caused damage to undersea fiber optic cables linking countries such as Malaysia, Singapore, Australia, Japan, South Korea, China, the United States and Europe, causing disruptions in Internet traffic worldwide. We may lose customers as a result of delays or interruption in service, including delays or interruptions relating to high volumes of traffic or technological problems, which may prevent communication over the Internet and could materially adversely affect our business, revenues, results of operations and financial condition.

We rely on Google Cloud for certain of our mobile-based digital entertainment services. Any disruption of or interference with our use of the Google Cloud operation would negatively affect our operations and seriously harm our business.

Google provides a distributed computing infrastructure platform for business operations, or what is commonly referred to as a "cloud" computing service, and we currently rely on Google Cloud for certain of our mobile-based digital entertainment services. Any significant disruption of or interference with our use of Google Cloud would negatively impact our operations and our business would be seriously harmed. If our users are not able to access our products through Google Cloud or encounter difficulties in doing so, we may lose users. The level of service provided by Google Cloud may also impact the usage of and our users' satisfaction with our products and could seriously harm our business and reputation. If Google Cloud experiences interruptions in service regularly or for a prolonged basis, or other similar issues, our business would be seriously harmed. Hosting costs will also increase as our user base and user engagement grows and may seriously harm our business if we are unable to grow our revenues faster than the cost of utilizing the services of Google or similar providers.

In addition, Google may take actions beyond our control that could seriously harm our business, including:

- discontinuing or limiting our access to its Google Cloud platform;
- increasing pricing terms;
  - terminating or seeking to terminate our contractual relationship altogether;
- establishing more favorable relationships with one or more of our competitors; or
- modifying or interpreting its terms of service or other policies in a manner that impacts our ability to run our business and operations.

Google has broad discretion to change and interpret its terms of service and other policies with respect to us, and those actions may be unfavorable to us. Google may also alter how we are able to process data on the Google Cloud platform. If Google makes changes or interpretations that are unfavorable to us, our business would be seriously harmed.

Any failure to maintain a stable and efficient distribution and payment network could have a material and adverse impact on our digital entertainment service business, financial condition and results of operations.

Our digital entertainment service business operation relies heavily on a multi-layer distribution and payment network composed of third-party distributors for our sales to, and collection of payment from, our users. As we do not enter into long-term agreements with any of our distributors, we cannot assure you that we will continue to maintain favorable relationships with them. If we fail to maintain a stable and efficient distribution and payment network, our business, financial condition and results of operations could be materially and adversely affected.

In addition, our ability to process electronic commerce transactions depends on bank processing and credit card systems. In order to prepare for certain types of system problems, we have a formal disaster recovery plan. Nevertheless, any system failure, including network, software or hardware failure, which causes a delay or interruption in our e-commerce services could have a material adverse effect on our business, revenues, results of operations and financial condition.

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Undetected programming errors or defects in our software, services and games and the proliferation of cheating programs could materially and adversely affect our digital entertainment service business, financial condition and results of operations.

Our digital entertainment services may contain undetected programming errors or other defects. These errors or other defects could damage our reputation and subject us to liability. As to online games, parties unrelated to us may develop cheating programs that enable users to acquire superior features for their game characters that they would not have otherwise. Furthermore, certain cheating programs could cause the loss of a character's superior features acquired by a user. The occurrence of undetected errors or defects in our digital entertainment services, and our failure to discover and disable cheating programs affecting the fairness of our service environment, could disrupt our operations, damage our reputation and ruin our users' experiences. As a result, such errors, defects and cheating programs could materially and adversely affect our business, financial condition and results of operations. If such errors, defects and cheating programs occur in software, services and games we operate, our business operations and, in turn, our business and financial condition, could be materially and adversely affected.

We may be subject to claims of intellectual property right infringement by third parties, which could subject us to significant liabilities and other costs.

Our success depends largely on our ability to use and develop our technology and know-how without infringing upon the intellectual property rights of third parties. There has been substantial litigation in the various segments of the technology, PC application and mobile application markets, including with respect to the online content, electronics, and related industries regarding intellectual property rights. From time to time, third parties may claim infringement by us of their intellectual property rights. Our broad range of application of current technology and technology under development increases the likelihood that third parties may claim infringement by us of their intellectual property rights. The validity and scope of claims relating to the intellectual property may involve complex scientific, legal and factual questions and analysis, and tend to be uncertain. If third parties assert copyright or patent infringement or violation of other intellectual property rights against us, we will have to defend ourselves in legal or administrative proceedings, which can be costly and time consuming and may significantly divert the efforts and resources of our technical and management personnel. An adverse determination in any such proceedings to which we may become a party could subject us to significant liability to third parties, require us to seek licenses from third parties, or prevent us from selling our products and services. The imposition of liabilities that are not covered by insurance, in excess of insurance coverage or for which we are not indemnified by a content provider, could have a material adverse effect on our business, results of operations and financial condition.

Certain technologies necessary for us to provide our services may, in fact, be patented by other parties either now or in the future. If such technology were held under patent by another person, we would have to negotiate a license for the use of that certain technology. We may not be able to negotiate such a license at a price that is acceptable. The existence of such patents, or our inability to negotiate a license for any such technology on acceptable terms, could force us to cease using such technology and offering products and services incorporating such technology. If we were found to be infringing on the intellectual property rights of any third party in lawsuits or other claims and proceedings that may be asserted against us in the future, we could be subject to liabilities for such infringement, which could be material. We could also be required to refrain from using, manufacturing or selling certain products or using certain processes, either of which could have a material adverse effect on our business and operating results. From time to time, we may receive in the future, notices of claims of infringement, misappropriation or misuse of other parties' proprietary rights. We cannot assure you that we will always prevail in these discussions and actions or that other actions alleging infringement by us of third-party patents will not be asserted or prosecuted against us. Furthermore, lawsuits like these may require significant time and expense to defend, may divert management's attention away from other aspects of our operations and, upon resolution, may have an adverse effect on our business, results of operations, financial condition and cash flows.

We may need to incur significant expenses to protect our intellectual property rights, and if we are unable to adequately protect our intellectual property rights, our competitive position could be harmed.

We regard our copyrights, service marks, trademarks, trade secrets, patents and other intellectual property as critical to our success. We rely on a combination of copyright and trademark laws, trade secret protection, confidentiality and non-disclosure agreements, and other contractual provisions to protect our proprietary software, trade secrets and similar intellectual property. We have patents, copyrights and trademarks in certain jurisdictions and may apply for further trademark and copyright registrations and additional patents, which may provide such protection in relevant jurisdictions. However, we cannot assure you that our efforts will prove to be sufficient or that third parties will not infringe upon or misappropriate our proprietary rights. Unauthorized use of the intellectual property, whether owned by or licensed to us, could adversely affect our business and reputation.



The validity, enforceability and scope of protection of intellectual property in Internet-related industries are evolving, and therefore, uncertain. In particular, the laws and enforcement procedures of Taiwan and Hong Kong are uncertain or do not protect intellectual property rights to the same extent as the laws and enforcement procedures of the United States do. We may have to engage in litigation or other legal proceedings to enforce and protect our intellectual property rights, which could result in substantial costs and diversion of our resources, and have a material adverse effect on our business, financial condition and results of operations.

Our future results of operations or the growth of our business may suffer if we are unable to maintain satisfactory relationships with the licensors of our digital entertainment services.

While we are focused on strengthening our abilities to self-developed casual games, we have historically and may in the future source casual games, advanced casual games, MMOs and other forms of digital entertainment services through licensing from developers in various regions where digital entertainment development is relatively established. As of the date of this annual report, we have several licensed MMOs in our portfolio, including the online games we currently offer and other products in the pipeline. We need to maintain stable and satisfactory working relationships with our licensors in order to ensure the continued operation of our licensed products and our continued access to new digital entertainment licenses. We depend on our licensors to provide the necessary technical support for the operation of the licensed games as well as expansion packs and upgrades that sustain continuing interest in the games. Our ability to maintain satisfactory working relationships with our licensors may also influence our ability to license new products developed by the same or other licensors. If we are unable to maintain satisfactory relationships with our licensors, our financial condition, results of operations, future profitability and growth prospects may be materially and adversely affected.

Increased energy costs, power outages, and limited availability of electrical resources may adversely affect our operating results.

Our data centers are susceptible to increased costs of power and to electrical power outages. Our customer contracts do not contain provisions that would allow us to pass on any increased costs of energy to our customers, which could affect our operating margins. Any increases in the price of our services to recoup these costs could not be implemented until the end of a customer contract term. Further, power requirements at our data centers are increasing as a result of the increasing power demands of today's servers. Increases in our power costs could impact our operating results and financial condition. Since we rely on third parties to provide our data centers with power sufficient to meet our needs, our data centers could have a limited or inadequate amount of electrical resources necessary to meet our customer requirements. We attempt to limit exposure to system downtime due to power outages by using backup generators and power supplies. However, these protections may not limit our exposure to power shortages or outages entirely. Any system downtime resulting from insufficient power resources or power outages could damage our reputation and lead us to lose current and potential customers, which would harm our operating results and financial condition.

We could be liable for breaches of security on our web site, fraudulent activities of our users, or the failure of third-party vendors to deliver credit card transaction processing services.

A fundamental requirement for operating an Internet-based, international communications service and electronically billing our customers is the secure transmission of confidential information and media (such as customers' credit card numbers and expiration dates, personal information and billing addresses) over public networks. Although we have developed systems and processes that are designed to protect consumer information and prevent fraudulent credit card transactions and other security breaches and are not aware of any breaches of security on our websites having occurred, failure to mitigate such fraud or breaches may expose us to litigation and possible liability for failing to secure confidential customer information and could harm our reputation and ability to attract and retain customers,

consequently adversely affect our operating results. The law relating to the liability of providers of online payment services is currently unsettled and certain jurisdictions may enact their own rules with which we may not comply. We rely on third-party providers to process and guarantee payments made by our subscribers up to certain limits, and we may be unable to prevent our customers from fraudulently receiving goods and services. Our liability risk will increase if a larger fraction of our transactions involve fraudulent or disputed credit card transactions. Any costs we incur as a result of fraudulent or disputed transactions could harm our business. In addition, the functionality of our current billing system relies on certain third-party vendors delivering services. If these vendors are unable or unwilling to provide services, we will not be able to charge for our services in a timely or scalable fashion, which could significantly decrease our revenue and have a material adverse effect on our business, financial condition and operating results.

We may experience losses due to subscriber fraud and theft of service.

Subscribers may in the future obtain access to our service without paying for service by unlawfully using our authorization codes or by submitting fraudulent credit card information. To date, such losses from unauthorized credit card transactions and theft of service have not occurred. We have implemented anti-fraud procedures in order to control losses relating to these practices, but these procedures may not be adequate to effectively limit all of our exposure in the future from fraud. If our procedures are not effective, consumer fraud and theft of service could significantly decrease our revenue and have a material adverse effect on our business, financial condition and operating results.

Our transactions with related parties may not benefit us and may harm our Company.

We have entered into several transactions with certain related parties in the past. We believe that we have conducted our related-party transactions on an arm's-length basis and on terms comparable to, or more favorable to us than, similar transactions we would enter into with independent third parties. However, we cannot assure you that all our future transactions with related parties will be beneficial to us. See Item 7, "Major Shareholders and Related-Party Transactions" in this annual report.

We may need additional capital in the future, and it may not be available on acceptable terms.

The development of our business may require significant additional capital in the future to:

- fund our operations;
- enhance and expand the range of products and services we offer; and
- respond to competitive pressures and perceived opportunities, such as investment, acquisition and international expansion activities.

We cannot assure you that additional financing will be available on terms favorable to us, if at all. If adequate funds are not available on acceptable terms, we may be forced to curtail or cease our operations. Moreover, even if we are able to continue our operations, any failure to obtain additional financing could have a material and adverse effect on our business, financial condition and results of operations, and we may need to delay the deployment of our services. See Item 5, "Operating and Financial Review and Prospects — B. Liquidity and Capital Resources."

Our results of operations and financial condition may be affected by political instability as well as the occurrence of natural disasters and epidemics.

We operate our digital entertainment business in Taiwan, Hong Kong and Macau. Political unrest, war, acts of terrorism and other instability, as well as natural disasters such as earthquakes and typhoons, which are common in Taiwan, can result in disruption to our business or the businesses of our customers. Our business also could be adversely affected by the effects of influenza A virus subtypes, such as H1N1 and H5N1, SARS or other epidemics. Any prolonged recurrence of such adverse public health developments in the regions where we operate may have material adverse effects on our business operations. These could include illness and loss of our management and key employees. Natural disasters or outbreak of epidemics may result in a decrease in economic activities or temporary closure of many businesses and disruption in our operations. In addition, other major natural disasters may also adversely affect our business by, for example, causing disruptions of the Internet network or otherwise affecting access to our services.

There are economic risks associated with doing business in Taiwan, particularly due to the tense relationship between Taiwan and the PRC.

Our principal executive offices and a significant portion of our assets are located in Taiwan and a major portion of our revenues of digital entertainment service business are derived from our operations in Taiwan. Taiwan, as part of the Republic of China, has a unique international political status. The PRC asserts sovereignty over mainland China and Taiwan and does not recognize the legitimacy of the Taiwan government. Relations between Taiwan and the PRC and other factors affecting the political or economic conditions of Taiwan could also affect our digital entertainment service business.

Game players' spending on our games may be adversely affected by slower growth in the Greater China economy and adverse conditions in the global economy.

We rely for our revenues on the spending of our game players, which in turn depends on the players' level of disposable income, perceived future earnings capabilities and willingness to spend. Any slowdown of the economy in Greater China, especially Taiwan or Hong Kong, could in turn result in a reduction in spending by our game players.

In addition, the global economy has experienced significant instability and there has been volatility in global financial and credit markets in recent years, recent growth in the United States economy may not be sustainable and some analysts are concerned that the European community may experience a sustained downturn. It is unclear how long such instability and volatility will continue, whether it will increase, whether it will lead to a renewed worldwide economic downturn such as the one that began in 2008, and how much adverse impact such instability and volatility or any such downturn might have on the economies of Greater China and other jurisdictions where we operate our games. Any such instability, volatility or adverse impact in Greater China or in overseas markets could cause our game players to reduce their spending on our games and reduce our revenues.

Fluctuations in the exchange rates between the U.S. dollar and other currencies in which we conduct our business could adversely affect our profitability.

The operations of our digital entertainment service business are conducted in NT dollars and Hong Kong dollars. Accordingly, fluctuations in the exchange rates could have a positive or negative effect on our reported results. Generally, an appreciation of NT dollars or Hong Kong dollars against U.S. dollars results in a foreign exchange loss for monetary assets denominated in U.S. dollars, and a foreign exchange gain for monetary liabilities denominated in U.S. dollars. On the contrary, a devaluation of NT dollars, Hong Kong dollars, or Singapore dollars against U.S. dollars results in a foreign exchange gain for monetary assets denominated in U.S. dollars, and a foreign exchange loss for monetary liabilities denominated in U.S. dollars. Given the constantly changing currency exposures and the substantial volatility of currency exchange rates, we cannot predict the effect of exchange rate fluctuations upon future operating results. There can be no assurance that we will not experience currency losses in the future, which could have a material adverse effect on our business, revenues, results of operations and financial condition.

#### Risks Related to Ownership of our Shares

Our Shares are listed on the Nasdaq Capital Market and if we fail to meet the standards for continued listing of our Shares on Nasdaq, the Shares could be delisted from the Nasdaq Stock Market.

Our Shares are listed on the Nasdaq Capital Market. The Nasdaq Capital Market has several quantitative and qualitative requirements companies must comply with to maintain listing, including a US\$1.00 minimum bid price per share. The trading prices for our Shares in the year 2014 were around the US\$1.00 range and traded below US\$1.00 several times. On January 14, 2015, Nasdaq notified us that the trading price of our Ordinary Shares no longer met the minimum US\$1 bid price per share requirement. Subsequently, at an Extraordinary General Meeting of our Company held on December 16, 2015, our shareholders approved a reverse stock split of our Ordinary Shares at a ratio of 5 to 1. As a result of the reverse stock split, our share price rose above US\$1.00 for a satisfactory consecutive period and we regained compliance with this listing requirement.

Although we have regained compliance with US\$1.00 minimum bid price listing requirement, there can be no assurance that we will maintain compliance and continue to meet all of the requirements for continued Nasdaq listing. If we fail to comply again in the future, our Shares could still be delisted from Nasdaq, which could have a material adverse effect on our stock prices and our standing with current and future investors.

The price of our Shares has been volatile historically and may continue to be volatile, which may make it difficult for holders to resell our Shares when desired or at attractive prices.

The trading price of our Shares has been and may continue to be subject to wide fluctuations. In 2018, the closing prices of our Shares on the Nasdaq Stock Market have ranged from US\$2.45 to US\$4.21 per share, and the closing price on April 12, 2019 was US\$2.65. Our Share price may fluctuate in response to a number of events and factors. In addition, the financial markets in general, and the market prices for Internet-related companies in particular, have

experienced extreme volatility that often has been unrelated to the operating performance of such companies. These broad market and industry fluctuations may adversely affect the price of our Shares, regardless of our operating performance.

Sizable percentage of our outstanding Shares are beneficially owned by Mr. Andre Koo, who accordingly has significant influence to the outcome of any corporate transaction or other matters submitted to our shareholders for approval, and their interests may differ from yours.

As of March 31, 2019, Mr. Andre Koo beneficially owned 19.54% of our outstanding Shares. Accordingly, he has significant influence to the outcome of any corporate transaction or other matters submitted to our shareholders for approval, including but not limited to mergers, consolidations, and the power to prevent or cause a change in control. The interests of Mr. Koo may differ from your interests.

The ability of our subsidiaries in Taiwan to distribute dividends to us may be subject to restrictions under the laws of Taiwan.

We are a holding company, and some of our assets constitute our ownership interests in our subsidiaries in Taiwan, including Hoshin GigaMedia, which owns the Taiwan-based operations of our digital entertainment service business. Accordingly, part of our primary internal source of funds to meet our cash needs is our share of the dividends, if any, paid by our subsidiaries, including those in Taiwan. The distribution of dividends to us from these subsidiaries in Taiwan is subject to restrictions imposed by the applicable corporate and tax regulations in these countries, which are more fully described in Item 5, “Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Dividends from Our Subsidiaries” in this annual report. In addition, although there are currently no foreign exchange control regulations which restrict the ability of our subsidiaries in Taiwan to distribute dividends to us, the relevant regulations may be changed and the ability of these subsidiaries to distribute dividends to us may be restricted in the future.

We are a Singapore company, and because the rights of shareholders under Singapore law differ from those under U.S. law, you may have difficulty in protecting your shareholder rights or enforcing any judgment obtained in the U.S. against us or our affiliates.

Our corporate affairs are governed by our memorandum and articles of association and by the applicable laws governing corporations incorporated in Singapore. The rights of our shareholders and the responsibilities of members of our board of directors under Singapore law are different from those applicable to a corporation incorporated in the United States and, therefore, our shareholders may have more difficulty protecting their interests in connection with actions by the management, members of our board of directors or our controlling shareholders than they would as shareholders of a corporation incorporated in the United States.

Our Company is incorporated under the laws of the Republic of Singapore. Many of our directors and senior management reside outside the United States. As a result, it may be difficult for investors to effect service of process within the United States upon us or any of these persons or to enforce in the United States any judgment obtained in the U.S. courts against us or any of these persons, including judgments based upon the civil liability provisions of the U.S. federal securities laws or any state or territory of the United States. Judgments of the U.S. courts based upon the civil liability provisions of the U.S. federal securities laws may not be enforceable in Singapore courts, and it is unclear whether Singapore courts will enter judgments in original actions brought in Singapore courts based solely upon the civil liability provisions of the U.S. federal securities laws.

Anti-takeover provisions under the Singapore Securities and Futures Act (Chapter 289) and the Singapore Code on Take-overs and Mergers may delay, deter or prevent a future takeover or change of control of our Company, which could adversely affect the price of our Shares.

The Singapore Code on Take-overs and Mergers (the “Code”), issued pursuant to Section 321 of the Singapore Securities and Futures Act (Chapter 289) regulates the acquisition of ordinary shares of, inter alia, listed public companies and contains certain provisions that may delay, deter or prevent a future takeover or change of control of our Company. Any person acquiring an interest, either on his own or together with parties acting in concert with him, in 30% or more of the voting shares in our Company must, except with the prior consent of the Singapore Securities Industry Council (the “SIC”), extend a takeover offer for the remaining voting shares in our Company in accordance with the provisions of the Code. Likewise, any person holding between 30% and 50% of the voting shares in our Company, either on his own or together with parties acting in concert with him, must, except with the prior consent of the SIC, make a takeover offer in accordance with the provisions of the Code if that person together with parties acting in concert with him acquires additional voting shares in excess of one percent of the total number of voting shares in any six-month period.

Under the Code, an offeror must treat all shareholders of the same class in an offeree company equally. A fundamental requirement is that shareholders in the company subject to the takeover offer must be given sufficient information, advice and time to consider and decide on the offer.

These provisions contained in the Code may discourage or prevent transactions that involve an actual or threatened change of control of our Company. This may harm you because an acquisition bid may allow you to sell your Shares at a price above the prevailing market price.



Our shareholders may be subject to Singapore taxes.

Singapore tax law may differ from the tax laws of other jurisdictions, including the United States. Gains from the sale of our Shares by a person not tax resident in Singapore may be taxable in Singapore if such gains are part of the profits of any business carried on in Singapore. For additional information, see Item 10, “Additional Information—E. Taxation—Singapore Tax Consideration” in this annual report. You should consult your tax advisors concerning the overall tax consequences of acquiring, owning or selling the Shares.

We may be deemed to be an investment company under the United States Investment Company Act of 1940, which could have a significant negative impact on our results of operations.

We may be deemed to be an investment company under the United States Investment Company Act of 1940 (the “1940 Act”), and may suffer adverse consequences as a result. Generally, the 1940 Act provides that a company is an investment company if the company (i) is, holds itself out as or proposes to be engaged primarily in the business of investing, reinvesting or trading in securities or (ii) is engaged or proposes to engage in the business of investing, reinvesting, owning, holding or trading in securities and owns or proposes to acquire “investment securities” having a value exceeding 40% of the value of its total assets (exclusive of U.S. government securities or cash items) on an unconsolidated basis. Under the 1940 Act, investment securities include, among other things, securities of non-majority owned businesses. However, a company that is primarily engaged, directly or through wholly owned subsidiaries, in a business or businesses other than that of investing, reinvesting, owning, holding or trading in securities is not an investment company.

In the past, we disposed of our online gambling business and made several significant investments in online game developers and operators. As a result of these transactions, we have a significant amount of cash and securities. Consequently, there is a risk that we could be deemed to be an investment company because our investment securities may be deemed to comprise more than 40% of our total assets (exclusive of U.S. government securities or cash items) on an unconsolidated basis pending investment of disposal proceeds into our businesses.

However, based on our historical and current business activities, our intentions, the manner in which we hold ourselves out to the public, the primary activities of our officers and directors and an analysis of our non-cash assets and income during 2018, the first quarter of 2019 and in prior periods, we believe that the better view is that we are not an investment company. Nevertheless, a part of the determination of whether we are an investment company is based upon the composition and value of our non-cash assets, a significant portion of which are presently comprised of our strategic investments. As a result, we could be deemed to be an investment company.

We intend to continue to conduct our businesses and operations so as to avoid being required to register as an investment company. We have sought opportunities to deploy our capital in a manner which would result in the Company acquiring majority interests in entities or businesses that complement or enhance our remaining businesses or would otherwise assist the Company in achieving our current corporate objectives. We have also limited, and intend to continue to limit, new strategic investments to those opportunities which would present excellent opportunities to complement or enhance our remaining businesses or would otherwise assist the Company in achieving our current corporate objectives. If, nevertheless, we were to be required to register as an investment company, because we are a foreign company, the 1940 Act would prohibit us and any person deemed to be an underwriter of our securities from offering for sale, selling or delivering after sale, in connection with a public offering, any security issued by the Company in the United States. Additionally, we may be unable to continue operating as we currently do and might need to acquire or sell assets that we would not otherwise acquire or sell in order to avoid being treated as an “investment company” as defined under the 1940 Act. We may incur significant costs and management time in this regard, which could have a significant negative impact on our results of operations.



We may be classified as a passive foreign investment company for U.S. federal income tax purposes. As a result, you may be subject to materially adverse tax consequences with respect to Shares.

In light of our significant cash balances and portfolio of investment securities, we believe that it is likely that we were classified as a passive foreign investment company, or PFIC, for the taxable year ended December 31, 2018, and we will likely be a PFIC for our current taxable year ending December 31, 2019, unless our share value increases substantially and/or we invest a substantial amount of the cash and other passive assets we hold in assets that produce or are held for the production of non-passive income. In addition, it is possible that one or more of our subsidiaries may be or become classified as a PFIC for U.S. federal income tax purposes. We generally will be classified as a PFIC for any taxable year in which 75% or more of our gross income consists of certain types of “passive” income or 50% or more of the average quarterly value of our assets (as generally determined on the basis of fair market value) during such year produce or are held for the production of passive income. For this purpose, cash and other assets readily convertible into cash are generally classified as passive and goodwill and other unbooked intangibles associated with active business activities may generally be classified as non-passive.

If we were to be classified as a PFIC in any taxable year during which a U.S. person (as defined in “E. Taxation—U.S. Tax Considerations—Passive Foreign Investment Company”) holds our Shares, such U.S. person may incur significantly increased United States income tax on gain recognized on the sale or other disposition of the Shares and on the receipt of distributions on the Shares to the extent such gain or distribution is treated as an “excess distribution” under the U.S. federal income tax rules. Furthermore, a U.S. person will generally be treated as holding an equity interest in a PFIC in the first taxable year of the U.S. Person’s holding period in which we become a PFIC and subsequent taxable years (“PFIC-Tainted Shares”) even if we cease to be a PFIC in subsequent taxable years. Accordingly, a U.S. person, who acquires our Shares during the current taxable year or subsequent taxable years, should, to the extent an election is available, consider making a “mark-to-market” election in the first taxable year of such holder’s holding period to avoid owning PFIC-Tainted Shares. For more information, see the section entitled “E. Taxation—U.S. Tax Considerations—Passive Foreign Investment Company”.

#### ITEM 4. INFORMATION ON THE COMPANY

##### A. History and Development of Our Company

Our business was founded as Hoshin GigaMedia in Taiwan in October 1998. For the purpose of a public equity offering, GigaMedia Limited was incorporated in Singapore in September 1999 as a company limited by shares. We acquired 99.99% of equity interest in Hoshin GigaMedia in November 1999 and the remaining 0.01% in October 2002. In more recent years, we have established additional subsidiaries inside and outside Taiwan to conduct parts of our operations.

In February 2000, we completed the initial public offering of our Shares. Our Shares are traded on the Nasdaq Stock Market under the symbol GIGM.

In January 2006, we acquired FunTown, a digital entertainment business operated in Taiwan and Hong Kong. In 2012, we began internal development of GigaCloud, a cloud computing software business focused on serving small and medium-sized enterprises in Greater China. In 2016, after reviewing the business plan, we decided to redirect our cloud service business resources for internal use, in particular, by moving the servers used in our digital entertainment business to the cloud, including the related maintenance, and to wind down our cloud service activities.

As part of plans to turn around the Company's financial performance, in 2012 we began implementation of a disposal and asset optimization program targeting non-strategic investments and underperforming assets. In 2016, we continued to dispose of underperforming and non-strategic investments. Descriptions of our principal capital expenditures and divestitures and descriptions of acquisitions of material assets are found in our discussion and analysis of financial condition and results of operation and in the notes to our consolidated financial statements included elsewhere in this annual report. See Item 5, "Operating and Financial Review and Prospects—A. Operating Results—Certain Significant Events Affecting Our Results of Operations for 2016, 2017 and 2018".

Our Singapore company registration number is 199905474H. Our principal executive offices are located at 8F, No. 22, Lane 407, Section 2, Tiding Boulevard, Taipei, Taiwan, and our telephone number is 886-2-2656-8000. Our website address is: <http://www.gigamedia.com> . Our agent in the U.S. is Computershare Limited and its office address is 480 Washington Blvd., Jersey City, New Jersey.

#### B. Business Overview

We are a diversified provider of digital entertainment services in Taiwan, Hong Kong and Macau. We do not utilize variable-interest entities in our operations.

We currently operate in the digital entertainment services, where we own 100% of and operate FunTown, a leading digital entertainment portal in Taiwan and Hong Kong. FunTown is focused on the high-growth mobile and browser-based casual games market in Asia.

GigaCloud, which is our wholly owned subsidiary that used to operate our cloud computing services, now supports our digital entertainment services as we continue to wind down our cloud service activities since 2016.

## Digital Entertainment Service Business

### Overview

Our digital entertainment service business, FunTown, has a strong track record of developing and monetizing PC-based casual games in Asia. FunTown also has one of the largest online social gaming platforms in Taiwan by revenue. We now leverage that as we restructure the business and extend our offerings to mobile and browser-based games in select areas and geographies going forward.

We also publish and operate PC- and mobile-based games under licensing agreements, usually in the territories of Taiwan, Hong Kong and Macau. Our understanding of local markets enables us to introduce foreign niche products by concentrating marketing efforts on a specific and well-defined segment of the population.

Most of our digital entertainment products are operated or expected to be operated under the item-billing revenue model (“Item-Billing”). Under the Item-Billing model, users are able to access the basic functions of a casual online game for free. Players may choose to purchase in-game value-added services as well as in-game virtual items and premium features to enhance the game experience. This allows players to utilize more functions, improve performance and skills, and personalize the appearance of a game character. Game points are consumed as users purchase value-added services and in-game items.

To complement our offerings and strengthen their appeal, we are focusing on building community-based online platforms that cater to different social networking needs of our users and provide various channels to facilitate communications among them. We intend to continue to seek growth and enhance our market position in the digital entertainment industry by increasing focus on mobile and browser-based games and expect to drive growth both organically and via mergers and acquisitions.

### Our Digital Entertainment Products

#### MahJong and Other Casual Games

MahJong is a traditional and highly popular Chinese tile-based game that is widely played in Taiwan, Hong Kong, the PRC, Japan, South Korea and other regions throughout Asia. Similar to poker, MahJong involves skill, strategy and calculation, as well as a certain degree of chance.

Through our FunTown-branded platform, we develop and offer various local versions of MahJong for players in Asia, particularly for those from Taiwan and Hong Kong. To play our online MahJong games, players install software that can be downloaded free of charge from our game websites. Players can compete with anyone throughout the FunTown network. Our MahJong games are designed for players of all levels of skill and experience. To accommodate various needs of players, we offer different online MahJong rooms based on skill levels or stakes. We believe our online MahJong game site is one of the largest online MahJong networks in Taiwan.

Players may play our online MahJong free of charge. While a player may be skillful to keep winning virtual currency in the game, usually to continue to play on a regular basis and establish a track record inside our online MahJong community, players may choose to purchase game points through various distribution channels, such as convenience stores and computer-based payment processing terminals. By purchasing our game points, players may exchange for virtual currency and deposit into their virtual bank accounts. The virtual currency may be used to play MahJong and other games in the FunTown game site or to purchase in-game virtual items, but cannot be redeemed for cash.

Our PC-based MahJong offering faced strong competition in recent years from the growth of mobile and browser-based online games, driven by the popularity of social networks and high mobile device usage in our markets. We responded by launching our MahJong game application which uses a web or browser-based technology with no download required. This simplified user sign-in procedures and enabled tighter integration with social networking platforms by allowing users to log into our game directly via their accounts at the social networking platform.

We also offer various other casual card and table games through our FunTown-branded platform. These online games are Internet-based and developed through computer simulation and adaptation of non-computer games, which are traditionally played offline. The FunTown platform targets players from different regions, particularly Taiwan and Hong Kong.

Our offerings include many different online card games which are popular in various regions in Asia. Players can select their desired table based on the level of skill or stakes. These games are designed with online multiplayer features that allow players to compete against one another. We also offer chance-based games, including bingo, lotto, horse racing, Sic-Bo, slots and various simple casual games.

Like online MahJong, players may play our other casual games for free. They may choose to purchase virtual currency to play on a continuous and regular basis. Virtual currencies may be used to play all the games in the FunTown game site or to purchase virtual items, but cannot be redeemed for cash.

Our revenues generated from MahJong and other casual games were approximately US\$1.8 million in 2018, down from approximately \$2.4 million in 2017 and \$2.5 million in 2016.

#### Role-Playing and Sports Games

In Taiwan and Hong Kong, we offer through FunTown online games of various sub-genres besides MahJong and other card or table games.

In June 2006, we launched the massive multiplayer online (“MMO”) sports game Tales Runner. Tales Runner is a PC-based multiplayer obstacle running game in which players compete by running, jumping, dashing and using items. With its fairy-tale style and constantly changing running tracks, Tales Runner has been a popular game in Hong Kong.

Our revenues generated from Tales Runner were approximately US\$1.3 million in 2018, down from approximately \$1.4 million in 2017 and \$1.6 million in 2016.

In October 2010, we acquired a non-controlling interest in XL Games, an online game developer in Korea. As a result of the transaction, we received certain strategic rights, including exclusive rights to operate the MMORPG game ArcheAge in Taiwan, Hong Kong, and Macau. XL Games launched the game in Korea in January 2013. However, considering the progressive shift in the gaming sector from PC-based to mobile-based games, we determined that the carrying amount of our prepaid licensing and royalty fees relating to ArcheAge were not fully recoverable. We had accordingly recognized impairment losses on such prepaid licensing and royalty fees of approximately US\$1.3 million in 2014 and US\$3.0 million in 2015. In 2017, XL Games reached an agreement with us to terminate the ArcheAge license by compensating us in the amount of US\$1.75 million and accordingly, we recognized a gain of approximately US\$1.7 million as a reduction of operating expenses in the consolidated statements of operations in 2017.

Traditionally, for our PC-based MMO games, players download and install client software from our websites. Our MMO games are offered free-of-charge to all players. Players may purchase virtual items that enhance their characters’ performance and game playing experience, or personalize their characters.

From 2015 to 2018, we launched ten mobile role-playing online games, or RPGs. In particular, Yume100, which was launched at the end of September 2015, outperformed other role-playing games. Yume100 is a story-based game that primarily targets female players in the age range of 15 to 35 years old. In the game, which has certain romantic elements, players assume game characters and complete challenges. As of December 31, 2018, the accumulated sales revenues of Yume100 since its launch were approximately US\$9.6 million. Leveraging the operating experience of Yume100, in mid-December 2017, we launched Akaseka, a similarly female-oriented game.

For our mobile games, players usually download the game software, or “app”, from third-party digital distribution platforms, such as “Google Play” or “Apple App Store”. Like our PC-based games, while our mobile games are offered free-of-charge, players may purchase virtual items to progress more quickly in the game, to enhance their characters’ performance and game playing experience, or to personalize their characters.



## Game Sources

### In-house development of Casual Games

We develop the casual games offered on FunTown's game platform, including online MahJong, card games, and other simple casual games. Our in-house development enables us to have better control of the game features and allow for seamless integration into our FunTown platform. In order to support product development capabilities and develop our proprietary online games, we intend to expand our browser/mobile-based games development capabilities. We made direct investment of more than \$1 million during 2018 in developing our own offerings.

### Sources of Role-playing and Sports Games

Historically we have sourced role-playing and sports games through licensing from developers in various regions where game development is well established. We monitor markets in the United States, South Korea, the PRC, Japan, Southeast Asia and Europe and maintain communications with a number of leading game development studios to identify and source new online games.

In selecting games, we evaluate the key factors that indicate the market trend and player demand and interest in the regions where we operate. We believe that our market analysis enables us to better assess the quality, risks, costs and potential returns of the games.

Prior to negotiating a license agreement with a game developer, our game testing team evaluates the game and prepares detailed evaluation reports covering the theme, storyline, in-game culture and environment, character progression, system architecture, game art, design, virtual articles and items. Based on the results of our evaluation, we may at times enter into a license agreement to operate select games. The cost of licensing games from developers generally consists of an upfront licensing fee, which we normally pay in several installments, and ongoing licensing fees, or royalties, which are equal to a percentage of revenues generated from operation of the game. We may also have to provide certain minimum guarantees in royalties to developers.

In preparing for the commercial launch of each new game, we cooperate with the game developer to localize the game to make it suitable for the target markets where we plan to launch. Once the developer completes the localization and provides the first-built version, we conduct closed beta testing of the game with a select group of users. During the test period, we identify and eliminate any technical problems, assess how likely users will be to play the game regularly over a period of time (referred to as user "stickiness"), and modify and add certain game features in order to increase user stickiness. The closed beta testing is followed by open beta testing, during which we operate our games under open market conditions and monitor the performance, consistency and stability of operational systems for the game.

Following the commercial launch of a game, we regularly implement improvements and upgrades to our games.

### FunTown Platform and Services

Our FunTown platform provides many digital entertainment services for the users to enhance their playing and entertainment experiences, facilitate information communication among them and support the development of a strong player community. These services include:

**Player Clubs.** FunTown offers online club services in its game community. FunTown players can also form their own clubs, invite other players with similar interests or skill levels to join, and organize online and offline events for club members. Player clubs complement the strong social features of online games by helping to maintain an online game community.

•Tournaments. FunTown provides various tournaments for its online MahJong players. After players join a club, they can participate in biweekly online inter-club tournaments.

•Avatars. To enhance players' overall entertainment experience, FunTown offers many in-game virtual items which may be purchased by players to customize their online personal graphic profiles, or avatars. Players use avatars to create their own unique look while participating in the online community. The virtual items for avatars include facial expressions, clothes and different accessories. These items are particularly popular with younger players, who customize their avatars to establish unique identities and pursue distinct fashions in the online community.

•Friends and Family Messenger. The FunTown platform has a unique function designed for players' personal contacts, which is similar to the contact list of instant message programs. This enables players to see when their friends and family members are online and invite people in their personal network to play games together.

**Social Networking.** The FunTown platform provides an online social networking community called FunTown Village, in which players meet each other through their online avatars. In FunTown Village, players can interact and communicate, purchase virtual items, and even get married virtually. FunTown plans to introduce more virtual items within FunTown Village to address the strong social interests of its players and to help increase FunTown's overall appeal as a distinct online game community.

**Customer Services.** FunTown provides support and services to its customers primarily through walk-in customer service centers in Taipei and Hong Kong, via e-mail and through an in-game report system where players can inquire and receive responses from FunTown.

**Other Platforms.** FunTown expects to launch its current online games onto other platforms, including the Android platform and Apple's iOS platform and to allow data synchronization between each of these platforms.

#### Our Marketing

Our marketing strategy is to capitalize on our established brand names and utilize our diverse distribution networks to retain our existing users and attract new users. We use various qualitative and quantitative market research methods to analyze our target market and to differentiate our product offerings from those of our competitors. We are engaged in a variety of traditional and online marketing programs and promotional activities, including the following:

##### In-Game Events and Online Marketing

We organize in-game events for our users, which we believe encourages the development of online communication and teamwork among our users and increases user interest in our games. Examples of in-game events include scheduled challenges or competitions for prizes. In addition, we use in-game events to introduce and market new features of our games to our current users.

We advertise our brands and our digital entertainment products across a variety of online media, including traditional online advertisements like YouTube, Google, Facebook, etc. We also collaborate with new media channels, for example, with micro-blogging services provided with websites and search engine services.

##### Offline Promotions and Advertisements

We advertise our brand names and our digital entertainment products across a variety of offline platforms, including television, magazines and outdoor advertisements. From time to time we distribute game-related posters, promotional prepaid cards for new users and souvenirs at trade shows, selected Internet cafés and other locations. We have contracted with various Internet café unions directly or via agents to promote our games in Internet cafés. We also conduct events at popular venues to stage exhibitions, distribute software and game content-related merchandise, and interact directly with our users.

In addition to advertising in various magazines, we also collaborate various promotions with entertainment magazines, which include providing free copies of games with each magazine sold.

##### Open Beta Testing

We conduct our open beta testing under open market conditions. During open beta testing, we do not charge users to play the new game. Open beta testing serves important marketing functions, including instilling initial interest, establishing an initial user base, and generating word-of-mouth publicity to support the commercial launch of the game.

## Our Distribution and Payment Channels

We sell game points for our digital entertainment services through various channels. Our distribution and payment channels are described below.

### Internet-Based Distribution Channels

Internet-based distribution channels consist of various websites, including the official website of FunTown. Users may purchase game points through these websites with their credit cards or computer-based payment processing terminals.

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We also use third-party digital distribution platforms, such as “Google Play” or “Apple App Store”, to provide our mobile game apps to users of various types of mobile devices.

#### Telecommunication Network Operators

We also distribute game points through cooperation with telecommunication network operators and their service providers. Our cooperating operators and service providers charge the fees to the purchasers’ phone bills, which are prepared and collected by the network operators.

#### Payment Aggregators

We also work with established payment aggregators. These payment aggregators allow users to pay for a variety of products and services, such as mobile phone calls and game points of different game operators, using their pre-paid scratch cards, vouchers or codes printed on receipts.

#### Offline Physical Distribution Channels

Physical distribution channels include convenience chain stores, gaming and related retail stores and supermarkets. At these locations, users may purchase pre-paid game cards with varying amounts of game points. Alternatively, users may purchase game packs to play specific games on FunTown.

#### Our Operation Architecture

We have a scalable and modular operation architecture that enables us to support and expand our digital entertainment offerings. The architecture consists of several key subsystems, including game services, a central user database, billing and payment, online customer service, game telemetry and monitoring. FunTown has its own unified user account system, which allows players to use a single account to access all FunTown games. Our billing and game management system supports various billing models and deposit options, and accommodate in-house developed games and licensed games. Our customer service system enables us to assist our players inside and outside the games. Our game telemetry and monitoring system allows us to track our concurrent online users in real time and effectively identify and fix technical problems in our server network.

#### Technology Infrastructure

Due to the real-time interaction among thousands of users, the stable operation of our online games requires a significant number of servers and a significant amount of connectivity bandwidth. We have developed an extensive technology infrastructure that supports the operation of our online games.

We seek to adapt our infrastructure promptly in response to changing circumstances. This includes moving the servers used in our digital entertainment business to cloud.

#### Our Customers

In Taiwan and Hong Kong, as of December 31, 2018, we had an aggregate of approximately 8.3 million unique registered customers of our digital entertainment services, most of which were located in Taiwan. During the year ended December 31, 2018, we recorded approximately 40,000 active paying users.

#### Competition

Our primary competitors in the digital entertainment business are online game operators based in Taiwan and Hong Kong. Our major competitors in Taiwan include Gamania, Soft-World, IGS, UserJoy and GodGame.

In addition, we compete for users against various offline entertainment products, such as console games, arcade games and handheld games, as well as various other forms of traditional or online entertainment.

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We expect more digital entertainment companies to enter into the markets where we operate, and a wider range of digital entertainment products to be introduced to the market given the relatively low entry barriers to entry in the industry. Our competitors vary in size and include private and public companies, many of which have greater financial, marketing and technical resources as well as name recognition. We intend to continue to enhance our market position through providing competitive products and quality services that meet market trends and users' preferences, as well as strengthening sales effectiveness.

#### Partnership with East Gate

In August 2010, we entered into a partnership agreement to invest KRW 6 billion (approximately US\$5.1 million) in East Gate, a Korean fund with total assets under management of KRW 34 billion, in return for a 17.65% partnership interest in proportion to our investment, as a limited partner. In November 2016, we entered into a fund partnership purchase agreement to transfer and sell our entire 17.65% partnership interest to the general partner of East Gate for consideration of US\$1.2 million. Upon closing of the transaction on November 30, 2016, we disposed of all our rights and benefits attached to and in relation to our investment in East Gate.

#### Seasonality

Our business experiences seasonality in the form of slower sales of FunTown's digital entertainment business in the second and third quarters, during which people tend to spend less time indoors and online as daylight hours increase and the weather conditions improve. Typically, our first and fourth quarters have been our strongest revenue periods.

#### Cloud Service Business

##### Overview

GigaCloud is a provider of cloud computing solutions and related services, which we launched in 2013. The business was founded on the concept of delivering via the Internet, or "cloud," integrated tools and services designed to help the enterprises in Greater China effectively manage complex and dynamic operating environments. We provide our customers highly adaptable, accessible and reliable services and tools to manage critical business functions that enable them to optimize their financial and human capital resources.

In 2016, after a review of our business plan, we decided to redirect our cloud service business resources for internal use, in particular, by moving the servers used in our digital entertainment business to the cloud, including the related maintenance, and to wind down our cloud service activities.

##### Regulation

Our business is subject to various laws and regulations in the jurisdictions we operate relating to the digital entertainment industry, and is regulated by various government authorities.

##### Regulations Relating to Digital Entertainment

##### Taiwan

At present, there is no specific law in Taiwan governing digital entertainment services, nor are there any specific licensing requirements imposed on Internet content providers in connection with offering online game services.

##### Rating of Internet Content

The Regulations for the Rating of Internet Content was abolished by the NCC in 2012. At present, the rating of internet content is governed by Article 46 of the Protection of Children and Youths Welfare and Rights Act, which requires that all internet platform providers adopt their own rules implementing “clear and practicable” protection measures in accordance with the internet content supervisory institutions engaged by the National Communications Commission (the “NCC”) and other relevant authorities to prevent youth and children from having access to harmful internet contents. An internet platform provider is required to restrict children and youths from having access to internet content upon the relevant authority’s notification that such internet contents may be harmful or that such internet platform provider failed to implement “clear and practicable” protection measures.



## Computer Software Ratings

The Ministry of Economic Affairs announced in July 2006 the Regulations Governing Computer Software Rating pursuant to the Protection of Children and Youths Welfare and Rights Act, which took effect in January 2007. These regulations were amended on May 29, 2012 and renamed the Regulations Governing Game Software Ratings, and were last amended on April 20, 2018. The definition of “game software” and the rating system have been significantly modified in the 2012 amendment. Game software means software that integrates digitalized text, sound, visual effects, music, pictures, images or animation which allows users to achieve certain goals of the game by operation of electronic equipment such as computer, hand-held or wearable reality devices, but excluding software installed upon the “electronic game arcade” as defined in the Electronic Game Arcade Business Regulation Act. Manufacturers, distributors, agents, sellers, rental service operators, disseminators, exhibitors and download providers are responsible for the administration of ratings. There are five ratings: (i) Restricted (allowed for ages 18 and above); (ii) Parental Guidance 15 (allowed for ages 15 and above); (iii) Parental Guidance 12 (allowed for ages 12 and above); (iv) Parent Protection (allowed for ages 6 and above); and (v) General Audience (suitable for all ages). According to the 2012 amendment, game software that uses virtual currency to play simulated MahJong, poker, dice, steel ball, horse racing, roulette, slot machine and other games of similar nature, and the outcome of the games may result in increase or decrease of the virtual currency, must be rated as Parental Protection. If the contents of such game software meet the requirements under the rating criteria for Restricted, Parental Guidance 15 or Parental Guidance 12, such games must be rated accordingly. Furthermore, according to the 2018 amendment, games adopting chess and puzzle as the main content must be provided with warnings statements showing that it may not be used for gambling or the engagement of any violation of laws and regulations or other similar conducts.

## Online Game Regulations and Standard Contract Template

The Ministry of Economic Affairs and the Consumer Protection Commission have announced the Regulations Mandatory and Prohibitory Provisions of Standard Contracts to Be Used for the Online Gam Services, and also published a standard contract template which sets out permitted terms and limitations with respect to online game services offered in Taiwan, pursuant to the Consumer Protection Act. The Regulations and the standard contract template were last amended in October 2018. Generally, consumers should be given at least three days to review such contract. Amendments or changes to fees payable for services offered must be publicly announced at least thirty days prior to such amendment, and notification provided to consumers. For lucky draw events in which consumers pay for tickets, the on-line game operator should guarantee that the activities and awards are fully disclosed. When a consumer’ ID and password has been compromised, the on-line game operator must provide assistance and information for him or her. Consumer game records must be maintained by each online game operator for a minimum period of thirty days and shall be open to inspection by such consumers. Suspension periods for consumers who have breached the terms of their online game contracts may not exceed a period of seven days. The termination date of online game operation must be publicly announced at least thirty days prior to such date, and notification provided to consumers. The on-line game operator cannot limit the use period of purchasing the game points in the on-line game contract. Furthermore, the on-line game operator cannot specify in the on-line game contract that it has the right to interpret the contract terms and conditions. Under the Consumer Protection Act, an on-line game operator using the online game contract but violating the above mandatory or prohibitory provisions, and failing to take corrective actions ordered within the time limit prescribed by the competent authorities, unless the law provides otherwise, shall be punished by an administrative fine of NT\$30,000 to NT\$300,000. Moreover, if an on-line game operator fails to take corrective actions within the time limit prescribed by the competent authorities, it shall be punished for each violation by an administrative fine of NT\$50,000 to NT\$500,000.

## Personal Data Protection Act

On April 27, 2010, the Legislative Yuan passed a bill to amend the Computer-processed Personal Data Protection Act, which was renamed as the Personal Data Protection Act. The Personal Data Protection Act was last amended on December 30, 2015. The personal data includes the name, date of birth, I.D. Card number, passport number, characteristics, fingerprints, marital status, family, education, occupation, medical record, medical treatment, genetic information, sexual life, health examination, criminal record, contact information, financial conditions, social activities and other information which may be used to identify a natural person, both directly and indirectly. Whenever an entity collects personal data from any individual, it shall inform such individual about (i) the name and identity of the collecting entity; (ii) the purpose of collection; (iii) how the collected personal data will be used; (iv) his/her rights; and (v) the consequences of his/her failure to provide the required personal data. If personal data is not provided by individuals, in addition to the information required to be disclosed as described above, the collecting entity shall inform such individual of the source of the data before processing or using the data. In principle, prior consent from the individual is required for use of his/her personal data. These requirements shall be exempted if relevant personal data of the individual (i) is used for public interests; or (ii) is available from the public domain and the interest to be protected is more important than the privacy of such individual. Depending on the gravity of a violation, damages of NT\$500 to NT\$20,000 may be claimed against a person for each violation of the Personal Data Protection Act even if the actual damage cannot be proved. If there is more than one victim in a single violation, the maximum damages would be up to NT\$200,000,000. However, if the interests involved therein exceed NT\$200,000,000, restrictions on maximum amount for damages to be claimed and on minimum amount for damages to be claimed (NT\$500 per person for each violation) shall not apply.

## Hong Kong

### Personal Data (Privacy) Ordinance

The Personal Data (Privacy) Ordinance (Cap. 486) came into effect in Hong Kong on December 20, 1996. The Hong Kong government has set up the Office of the Privacy Commissioner, which is an independent statutory body to oversee the enforcement of the Ordinance. The objective of the Personal Data (Privacy) Ordinance is to protect the privacy rights of a person in relation to personal data (Data Subject). Everyone who is responsible for handling data (Data User) should follow the Six Data Protection Principles ("DPPs"), including: (i) Data Collection Principle; (ii) Accuracy & Retention Principle; (iii) Data Use Principle; (iv) Data Security Principle; (v) Openness Principle; and (vi) Data Access & Correction Principle. Non-compliance with Data Protection Principles does not constitute a criminal offence directly. However, the Commissioner may serve an Enforcement Notice to direct the data user to remedy the contravention and/or instigate the prosecution action. Contravention of an enforcement notice is an offence which could result in a maximum fine of HK\$50,000 and imprisonment for two years. Moreover, the Ordinance also criminalizes misuse or inappropriate use of personal data in direct marketing activities (Part VI A); non-compliance with Data Access Request (section 19); or unauthorized disclosure of personal data obtained without data user's consent (section 64). An individual who suffers damage, including injured feelings, by reason of a contravention of the Ordinance in relation to his or her personal data may seek compensation from the data user concerned.

### Dividends from Our Subsidiaries

Under Singapore tax regulations, foreign-sourced dividend income used for capital expenditures, including investments, and repayment of borrowings, is not deemed as remitted to Singapore and is therefore not taxable.

### Listing and Offering

Under Nasdaq Rule 5210(c), as amended (“Rule 5210(c)”), all securities listed on Nasdaq must be eligible for a direct registration program, or DRS, operated by a registered clearing agency, unless the foreign private issuer is prohibited from complying by a law or regulation in its home country. In order to fulfill the direct registration program eligibility requirements, we are required to, among other provisions, amend our constitutional documents to allow for the issue of non-certificated securities.

Our Company is incorporated under the laws of the Republic of Singapore and is subject to the provisions of the Companies Act (Cap.50) of Singapore (the “Companies Act”). Under the Companies Act, Singapore-incorporated companies are required to issue physical share certificates to registered shareholders as prima facie evidence of a registered shareholder’s title to the Shares and there are no exceptions to or exemptions from this requirement that would enable us to amend our constitutional documents to allow for the issue of non-certificated shares. Therefore, we are not able to comply with the DRS eligibility provisions of Rule 5210(c).

Under the DRS eligibility provisions, as a foreign private issuer, we are allowed to follow our home country practice in lieu of the requirements set out in Rule 5210(c), subject to certain exceptions. We will be relying on this for an exemption from the DRS eligibility requirements under Rule 5210(c). We have informed the Nasdaq Stock Market about our election to comply with the laws of Singapore in lieu of the DRS eligibility provisions of Rule 5210(c).

C. Organizational Structure

We were incorporated in Singapore as a company limited by shares on September 13, 1999. As of the date of this annual report, our principal operating subsidiaries include Hoshin GigaMedia and FunTown World Limited. Hoshin GigaMedia, our wholly owned subsidiary incorporated in Taiwan, operates our digital entertainment service business in Taiwan. FunTown World Limited, our wholly owned subsidiary incorporated in the British Virgin Islands, operates our digital entertainment service business in Hong Kong and Macau.

The following organization chart and table set forth our business structure and selected information for each of our principal subsidiaries as of the date of this annual report:

\*Includes our operating subsidiaries or companies holding material investments or contracts only. All subsidiaries are 100% owned unless otherwise indicated.

Entity	Place of Incorporation	Relationship
Held by our Company		
GigaMedia International Holdings Limited	British Virgin Islands	Wholly owned subsidiary
Held by GigaMedia International Holdings Limited		
GigaMedia Online Entertainment Corp.	Cayman Islands	Wholly owned subsidiary
Cambridge Entertainment Software Limited	British Virgin Islands	Wholly owned subsidiary
GigaMedia (HK) Limited	Hong Kong	Wholly owned subsidiary
GigaMedia (Cayman) Limited	Cayman Islands	Wholly owned subsidiary
Held by GigaMedia Online Entertainment Corp.		
FunTown World Limited	British Virgin Islands	Wholly owned subsidiary
GigaMedia Freestyle Holdings Limited	British Virgin Islands	Wholly owned subsidiary
GigaMedia (Labuan) Limited	Labuan	Wholly owned subsidiary
Megabiz Limited	British Virgin Islands	Wholly owned subsidiary
Held by FunTown World Limited		
FunTown Hong Kong Limited	Hong Kong	Wholly owned subsidiary
Held by GigaMedia (Cayman) Limited		
Hoshin GigaMedia Center Inc.	Taiwan	Wholly owned subsidiary
GigaMedia Development Corporation	Taiwan	Wholly owned subsidiary
GigaMedia Cloud Services Co. Ltd.	Taiwan	Wholly owned subsidiary
Held by Hoshin GigaMedia Center Inc.		
Gaminfinity Publishing Co. Ltd.	Taiwan	Wholly owned subsidiary
Play2gether Digital Technology Co. Ltd.	Taiwan	Wholly owned subsidiary
Held by Giga Development Corporation		
Wen He Investment Ltd.	Taiwan	Wholly owned subsidiary
Held by GigaMedia (HK) Limited		
Shanghai Pontoon Networking Technology Co., Ltd.	China	Wholly owned subsidiary

#### D. Property, Plant and Equipment

As of April 6, 2019, we leased approximately 28,000 square feet as office premises as our corporate head office in Taipei, Taiwan and approximately 4,000 square feet as office premises for FunTown's office in Hong Kong.

#### ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

#### ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

Unless stated otherwise, the discussion and analysis of our financial condition and results of operations in this section apply to our consolidated financial statements as prepared in accordance with U.S. GAAP. You should read the following discussion of our financial condition and results of operations together with the consolidated financial statements and the notes to these statements included elsewhere in this annual report.

## A. Operating Results

### Overview

We are a diversified provider of digital entertainment services. Our only segment and principal business is our digital entertainment service business, which operates a portfolio of digital entertainment products, primarily targeting digital entertainment service users across Asia.

In 2018, we had total operating revenues of approximately US\$7.1 million, a decrease of approximately US\$4.5 million year-over-year. Our total costs and expenses decreased by approximately US\$0.2 million year-over-year to US\$11.9 million, primarily due to reduced costs, in line with the decreased revenues, as well as reduction in selling and marketing expenses, and we had a return of fees related to termination of a licensing agreement, amounting to US\$1.75 million, was recognized as a gain in 2017 (see Item 4, “Information of the Company — B. Business Overview” in this annual report for more information). We incurred an operating loss of approximately US\$4.8 million, an increased loss of approximately US\$4.3 million year-over-year. We recognized a non-operating income of approximately US\$1.6 million, compared to a loss of approximately US\$95 thousand in the prior year. We did not recognize any income tax benefits or expenses in 2018, compared to income tax benefits of approximately US\$1.7 million in 2017, which was primarily due to reduction in certain deferred tax liabilities. We recognized a net loss attributable to us of approximately US\$3.2 million, a deterioration of approximately US\$4.3 million year-over-year, primarily resulting from the aforementioned factors.

**Digital Entertainment Business.** We operate our digital entertainment business in Taiwan, Hong Kong and Macau through FunTown. We acquired FunTown in January 2006 and consolidated the financial results of FunTown into our consolidated financial statements starting from January 1, 2006.

Online game operators in Taiwan and Hong Kong are currently our primary competitors. Given the low barriers to entry in the digital entertainment industry and the increasing popularity of Internet-based businesses, there are a large number of potential competitors scattered throughout many different segments of the software and Internet industries. In addition to the aforementioned competitors, traditional entertainment service providers and other entities, many of which have significant financial resources and name brand recognition, may provide digital entertainment services in the future, and thus become our competitors.

Faced with our known competitors, and most likely additional new competitors that may be established in the near future, we will continue to improve the principal competitive factors that we believe can differentiate our product offerings from those offered by our competitors, including: brand, technology, financial stability and resources, proven track record, independent oversight and transparency of business practices in our industry.

In 2018, our digital entertainment business generated revenue of approximately US\$7.1 million, gross profit of approximately US\$3.5 million, operating loss of approximately US\$2.7 million, non-operating income of approximately US\$266 thousand, and net loss of approximately US\$2.5 million. Please refer to Note 20 to our audited consolidated financial statements included in this annual report for more segment information.

Certain Significant Events Affecting Our Results of Operations for 2016, 2017 and 2018

Divestiture of PerfectPairs

In January 2016, we disposed of PerfectPairs by selling our entire equity interest to two Taiwanese individuals unrelated to our Group for total cash consideration amounted to approximately US\$760 thousand. Upon the disposal, we deconsolidated PerfectPairs and recognized a disposal gain of approximately US\$827 thousand. Summarized financial information for PerfectPairs upon the deconsolidation and the gain on sale is as follows:

(In US\$ thousand)	Amount
The fair value of consideration received, net of any	
transaction costs	\$ 760
The carrying amount of PerfectPairs	
Cash	482
Receivables and other current assets	40
Property, plant and equipment	71
Intangible and other noncurrent assets	13
Accounts payable and accrued expenses	(528 )
Other payable and other current liabilities	(144 )
The carrying amount of PerfectPairs at the date of	
deconsolidation	(66 )
Exchange difference	1
Gain on disposal of PerfectPairs	\$ 827

Operating Results and Divestiture of Our Investment in East Gate

Based on our partnership agreement with East Gate, we determined that we had the ability to exercise significant influence over East Gate, and accordingly accounted for our investment under the equity method. In 2016, we recognized equity method losses of approximately US\$1.6 million on our investment in East Gate.

In November 2016, we entered into a fund partnership purchase agreement to transfer and sell our entire 17.65% partnership interest of East Gate to a Korean investor unrelated to our Group for consideration of US\$1.2 million. Upon closing of the transaction on November 30, 2016, we disposed of all our rights and benefits attached to and in relation to our investment in East Gate. Summarized financial information for the gain on disposal of the investment is as follows:

(In US\$ thousand)	Amount
The fair value of consideration received, net of any	
transaction costs	\$ 112
The fair value of consideration receivable, net of any	
transaction costs	1,058
	1,170



The carrying amount of the investment of East Gate at the

date of disposal	1,398
Exchange difference	250
Gain on disposal of investment in East Gate	\$ 22

The consideration receivable of \$1.1 million as of December 31, 2016 had been fully collected as of December 31, 2017.

#### Disposal of Owned Office Premises

In January 2016, we entered into disposal agreements to sell certain office premises not used for our principal business to several counterparties unrelated to us, for total cash consideration amounted to approximately US\$1.9 million. The closing of the disposals occurred in March 2016. Upon the closing, we recognized disposal gains of approximately US\$798 thousand.

#### Termination of a game license

We have entered licensing arrangements for our digital entertainment business and in 2015, prepaid licensing and royalty fees for one of the licensed games had been fully impaired and as a result the cost became nil. In 2017, the licensor of that gaming development company reached an agreement with us to terminate the license by compensating us in the amount of US\$1.75 million and accordingly, we have recognized a gain of approximately US\$1.7 million as a reduction of operating expenses in the consolidated statements of operations in 2017.

#### Liquidation of a subsidiary

In October 2017, a subsidiary of ours in the U.S. resolved to dissolve and liquidate and completed the process and filed a final tax return in February 2018. The gain that resulted from such liquidation was treated as capital gain, which is exempt from U.S. withholding tax. As such, there was a reversal of the deferred income tax liabilities of US\$1.7 million as such deferred income tax liabilities were originally accrued for a potential withholding obligation upon possible distribution.

#### Impairment Losses Related to Underperforming Projects in Our Digital Entertainment Service Business

We incurred certain impairment losses in 2018 and 2016 as described further below. No impairment losses were incurred in 2017.

##### 2018 Impairment Losses

We recognized an impairment loss of approximately US\$0.2 million in our consolidated financial statements for the year ended December 31, 2018. This US\$244 thousand impairment loss on prepaid licensing and royalty fees that related to certain licensed games for which the carrying amount was determined not to be fully recoverable due to the progressive shift in the gaming sector from PC-based to mobile device-based games. Prepaid licensing and royalty fees are first assessed with the commercial viability of the launch plan of the related games, then valued using a discounted cash flow model, when reasonable grounds exist for projections, to determine fair value, incorporating available market discount information, our estimate for liquidity risk and other cash flow model related assumptions based on unobservable inputs.

##### 2016 Impairment Losses

Due to certain underperforming game projects and decreased forecasts within our Asian digital entertainment product and service business, we recognized an impairment loss of US\$1.9 million in our consolidated financial statements for the year ended December 31, 2016 as follows:

1) US\$1.4 million impairment loss on prepaid licensing and royalty fees, which related to certain licensed games for which the carrying amounts were determined not to be recoverable due to underperformance. Prepaid licensing and royalty fees are valued using a discounted cash flow model, when reasonable grounds exist for projections, to determine fair value, incorporating available market discount information, our estimate for liquidity risk and other cash flow model related assumptions based on unobservable inputs.

2) US\$471 thousand impairment loss on property, plant and equipment and US\$57 thousand impairment loss on intangible assets for capitalized software costs as a result of consecutive operating losses in recent years that were expected to continue and therefore the carrying amounts of those long-lived and intangible assets would not be recoverable based on cash flow projections from current games, which typically have shorter lives. Those long-lived and intangible assets are valued using a discounted cash flow model, when reasonable grounds exist for projections, to

determine fair value, incorporating available market discount information, our estimate for liquidity risk and other cash flow model related assumptions based on unobservable inputs.

#### Impairment Losses on Marketable Securities and Investments

As a result of unsuccessful investments made by previous management in game studios and companies, we recognized impairment losses on marketable securities and investments of US\$52 thousand in 2017. The impairments are described further below:

In 2014, we made an investment in common shares of Double2 Network Technology Co., Ltd. (“Double2”), of US\$667 thousand. As a result of consecutive and deteriorating losses incurred without encouraging prospects, we wrote down this investment to its estimated fair value of US\$194 thousand, resulting in an impairment charge of US\$290 thousand in 2015. And as a further result of its inability to reduce cash burn, we fully wrote down our investment in Double2 in 2017 to zero, resulting in an impairment charge of US\$52 thousand in 2017.

## Critical Accounting Policies

The discussion and analysis of our financial condition and results of operations are derived from our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the U.S., or U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Our significant accounting policies are closed in note 1(c) to our consolidated financial statements. We believe that the following discussion addresses the most critical accounting policies applicable to our Company, which are those that are most important to the portrayal of the financial condition and results of operations of our Company, and require management's most difficult, subjective and complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

### Revenue Recognition and Deferral

#### General

On January 1, 2018, we adopted ASC Topic 606, "Revenue from Contracts with Customers", using the modified retrospective transition method applied to contracts that were not complete as of the adoption date. Consolidated financial results for reporting periods beginning after January 1, 2018 are presented under ASC Topic 606, while prior period amounts continue to be reported in accordance with ASC Topic 605, "Revenue Recognition". Please refer to Note 1 of our consolidated financial statements contained in our previously-filed Annual Report on Form 20-F for the year ended December 31, 2017 for our revenue recognition accounting policy as it relates to revenue transactions prior to January 1, 2018. The revenue recognition accounting policy described below relates to revenue transactions from January 1, 2018 and onward, which are accounted for in accordance with ASC Topic 606.

Our recognition of revenue from contracts with customers is in accordance with the five-step revenue recognition model: (1) Identify the contract with a customer; (2) Identify the performance obligation in the contract; (3) Determine the transaction price; (4) Allocate the transaction price to each performance obligation; and (5) Recognize revenue when or as we satisfy a performance obligation.

Sales taxes assessed by governmental authorities on our revenue transactions are presented on a net basis and therefore are excluded from revenues in our consolidated financial statements.

In addition to the aforementioned general policies, the following are the specific revenue recognition policies for revenue from contracts with customers.

#### Digital Entertainment Product and Service Revenues

Digital entertainment product and service revenues are mainly generated through sale of virtual points and in-game items, and those virtual goods purchased in our game can only be consumed in our game. Therefore, we regard the sale of a virtual good as a service, where related performance obligation is satisfied over time, and revenues are recognized by measuring progress toward satisfying the performance obligation in a manner that best depicts the transfer of goods or services to the customer. Accordingly, we recognize revenues from the sale of virtual goods over the period of time using the output method, which is generally the estimated service period.

Digital entertainment product and service revenues are generated through the sale of virtual points, prepaid cards and game packs via various third-party storefronts, distributors and payment channels, including but not limited to "Google Play Store", "Apple App Store", convenience stores, telecom service providers and other payment service providers.

Proceeds from sales of prepaid cards and game packs, net of sales discounts, and virtual points are deferred when received, and revenue is recognized upon the actual usage of the playing time or in-game virtual items by the end-users; over the estimated useful life of virtual items; or when the game is terminated and the period of refund claim for any sold virtual items is ended in accordance with our published policy; or when the likelihood of the customer exercising the remaining rights becomes remote. (See the paragraphs under the caption “Deferred Revenues and Breakage” below for more discussion of accounting treatments of the unexercised rights.)

#### Estimated Service Period

The virtual goods for our games may have different service periods. We use the weighted average number of days of a player's payment interval as the estimate for the service period of each game. We evaluate the appropriateness of such estimates quarterly to see if they are in line with our observations in the operations. We believe this provides a reasonable depiction of the transfer of services to our customers, as it is the best representation of the time period during which our customers play our games. Determining the estimated service period is subjective and requires management's judgment. Future usage patterns may differ from historical ones, and therefore the estimated service period may change in the future. The estimated service periods for players of our current games are generally less than 12 months.

#### Principal Agent Considerations

For the revenues generated from our digital entertainment offerings which were licensed to us for using, marketing, distributing, selling and publishing, and for the sales of our products and services via third-party storefronts and other channels, we evaluate to determine whether our revenues should be reported on a gross or net basis. Key indicators that we evaluate in determining whether we are the principal in the sale (gross reporting) or an agent (net reporting) include, but are not limited to: