CYBER SECURITY APPLICABILITY AND COMPLIANCES FOR GLOBAL ONLINE SERVICE

Choi Joong-Sub
NEOWIZ GAMES
## OVERVIEW

<table>
<thead>
<tr>
<th>Company</th>
<th>NEOWIZ GAMES</th>
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<tbody>
<tr>
<td>CEO</td>
<td>Lee Ki-Won</td>
</tr>
<tr>
<td>Business</td>
<td>Online Game Publishing &amp; Development</td>
</tr>
<tr>
<td>Established</td>
<td>April, 2007</td>
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<tr>
<td>Listed</td>
<td>July, 2007</td>
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<tr>
<td>Number of Employees</td>
<td>1,500 (as of June. 2013)</td>
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<tr>
<td>Revenue</td>
<td>$675 million (as of 2012)</td>
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NEOWIZ GAMES is a global leading game publisher with several global #1 online games.

HISTORY

Established NEOWIZ(97’)
- Established NEOWIZ
- Avatar Biz

Domestic Expansion
- Special Force launched
- #1 FPS in Korea
- FIFA Online 2 launched
- #1 Sports game in Korea
- Acquired Game On
- Leading Publisher in Japan

Global Expansion
- Cross Fire launched
- #1 FPS in China
- 23 mn users of Pmang.com
- A.V.A launched
- #1 FPS in Japan
DOMINANT DOMESTIC BUSINESS

Game Portal Pmang.com empowered by 50+ titles in shooting, sports, and mini-casual games
Key Metrics: 20mn Registered Users, 4mn Unique Visitors, 15% Paying Ratio, ARPPU 30+ USD
GROWTH DRIVING OVERSEAS BUSINESS

Expand into 20+ countries with Cross Fire, AVA, and S4 League
Explore more opportunities in frontier markets with new product line-ups

Overseas revenues in 2008
$10mn

Overseas revenues in 2012
$409mn
EXCLUSIVE PUBLISHING KNOW-HOW

Pioneering new genre and maximizing product life cycle & traffic efficiency
Value creation to optimize the service for user needs rather than simple distribution

- Internal Studios: Providing IP source code
- 3rd party Developers: Applying Monetizing system
- Market Positioning
- Marketing Planning
- DB Analysis & Management
- Quality control & Enhancing security
- Item development & traffic efficiency improvement

Own Platform
Channeling Partners
Overseas Operators
CORE DEVELOPMENT ASSET

- Proven publishing know-how & Innovation for decade
- Unique track record of success in Co-development
- Thorough risk management via product review committee
- Stable cash flow from sustainable Publishing business

**Development Capability**

**100+ Developers in FY 2007**

- Co-development focused

**Currently 400+ Developers**

- Self-development
MULTI-DIMENSIONAL GROWTH STRATEGY

**Publishing**
- Co-development
- Self-development

**Market Expansion**
- Domestic Market
  - China, US, Europe, SE Asia
  - Pioneer new frontier market

**GROWTH & INNOVATION through IP**

**Business Development & Investment**
- Business Development & Investment
  - Neoply Center
  - Investment Fund (US$48M)

**Publishing + Development**
- Mini Casual
  - ACG (FPS, Sports, etc)
  - MMORPG

**Genre Expansion**
SECURITY THREATS ON THE ON-LINE GAME BUSINESS

Security threats among on-line game industry are growing as on-line game industry grows.

- **Attacker**
  - Theft of User credentials (id/password pair)
  - Theft of Digital Assets (online cash, game assets)

- **Gamer (Consumer)**
  - Abnormal Production of Game Assets (Autos)

- **Publisher (Service Provider)**
  - Theft of Membership database
  - Theft of Game Software (Server)

- **Studio (Contents Supplier)**
  - Theft of Game source code

- **Attack on Service continuity**
ANTICIPATED IMPACT OF SECURITY BREACH

- Decreased Fairness:
  - Lose interest
  - Move to competitive game

- Induce Server Load:
  - Decline speed of games
  - Increase in user complaints
  - Increase the cost for additional servers

- User credential Leakage:
  - Lost privacy and gaming assets
  - Induce legal conflict
  - Abasement of brand values

Shortening of game life
Deterioration of a profitability
Hardening business growth strategy - Meeting IT & security compliances

IT Security compliances
- ISMS, ISO 27001, etc.
- Regulations
- Recommendations
SECURITY – PROTECTING USERS LEADS REVENUE RAISED

Attacker

Theft of User credentials
(id/password pair)

Theft of Digital Assets
(online cash, game assets)

Abnormal Production of Game Assets (Autos)

Support Security Programs
Auto Playing Program prevention
Anti-virus support (credential theft prevention)

Publisher (Service Provider)

Gamer (Consumer)

Revenue Rise

Play more time
Buy more items
Gain gamer’s confidence

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THANK YOU