

Olympics & ICT

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**In the Pyeong-Chang Organizing Committee
for the 2018 Winter Olympic Games**



< Contents >

1. Olympics

2. Pyeong-Chang Olympic

**3. ICT Infrastructure for
Pyeong-Chang**

4. ICT & Olympics

5. Pyeong-Chang ICT Olympic



1. Olympics

1. Olympics

- **Ancient Olympics**

- Around BC 870 to A.D. 393 : Held every four years
- The competition was steadily held for more than 1,172 years with the 239th as the last competition

- **Modern Olympic Games**

- Competition began on 1896 in Athens, Greece
- **Recent Olympics**
 - Rio Summer Olympics 2016
 - Pyeong-Chang Winter Olympics 2018
 - Tokyo Summer Olympics 2020
 - Beijing Winter Olympics 2022



2. Pyeong-Chang Olympic Games, 2018



2 - 1. Overview (1/2)



2018 PyeongChang Winter Olympic Games

- Location : PyeongChang, Gangneung, Jeongseon, Bokwang
- Period : 2018. 2. 9. ~ 2. 25. (17 days)
- Approximately 100 nations participating
- Total 102 Gold medals

하나된 열정

Passion. Connected.

'Passion'은 올림픽의 정신과 한국의 따뜻한 정을 의미

'Connected'은 평창의 새로운 시작과 세계의 조화를 표현

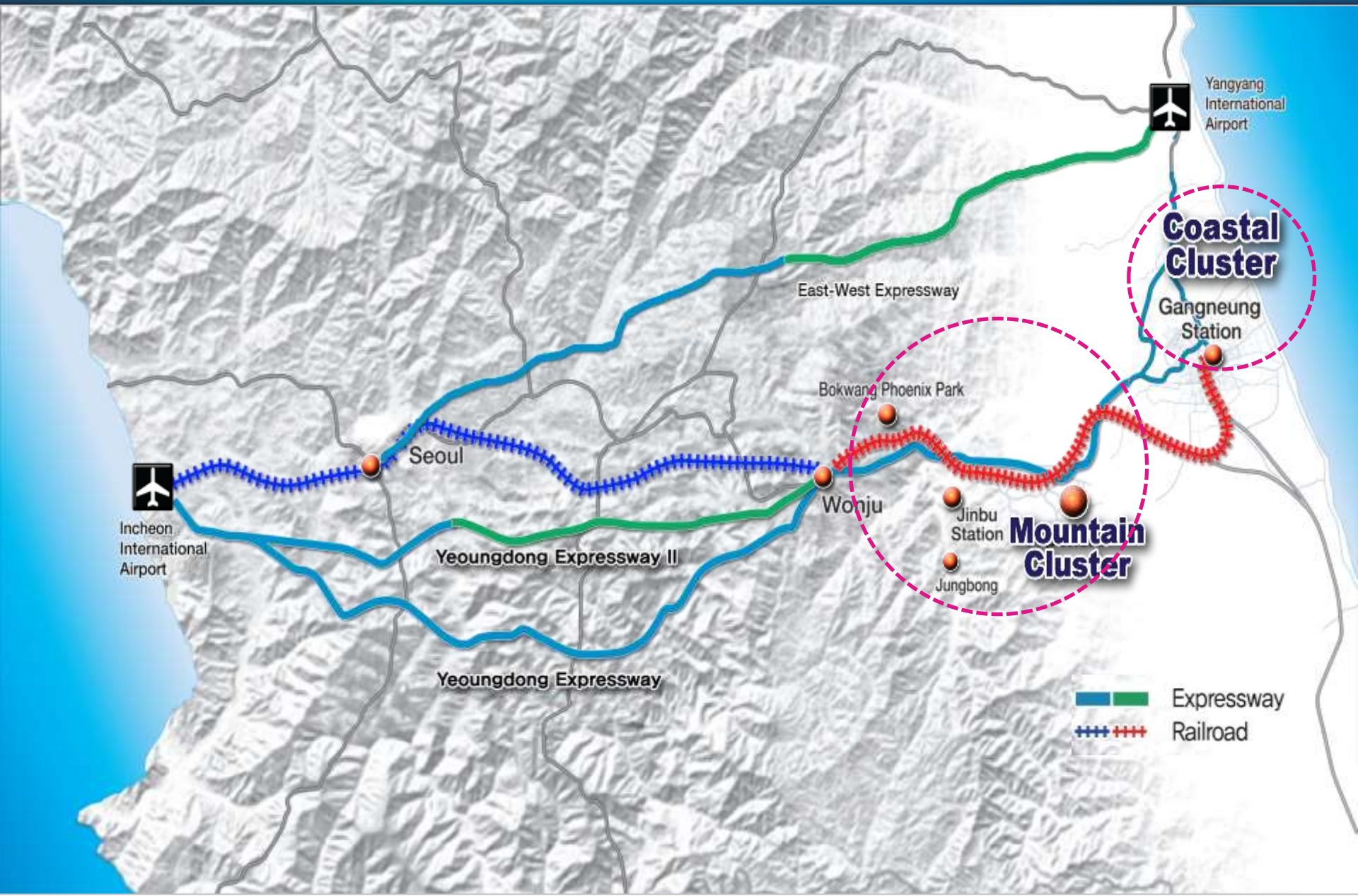
2 - 1. Overview (2/2)

Expected Participants and Workforce

- **Spectator : 1,500,000** people
- **Audience : 3.8 Billion** (Vancouver 2010)
- **Workforce - 83,000** people
 - **Workforce** : 52,400 (Paid staff, Volunteers, Contractors, etc)
 - **Broadcast** : 11,000 / **Press** : 2,900
 - **International Federation** : 1,370 (Technical Officials, Directors, Staff etc)
 - **Marketing Partners** : 6,540 (TOP Partners/Tier 1/Tier2/Tier 3)
 - **NOC / NPC** : 6,010 (Athletes, Team Delegates, etc)
 - **Olympic / Paralympic Family** : 2,770 (IOC, CEO, etc)



2 - 2. Location



2 - 3. Venues (PyeongChang) (1/3)



**PyeongChang
Olympic Stadium**



**Yongpyong
Alpine Centre
(Alpine Technical)**



**Alpensia
Ski Jumping Centre**



**Alpensia
Cross-Country Skiing
Centre**



**Alpensia
Sliding Centre**



**Mountain Cluster
(PyeongChang)**

2 - 3. Venues (Gangneung) (2/3)



**Kwandong
Hockey Centre (IH 2)**



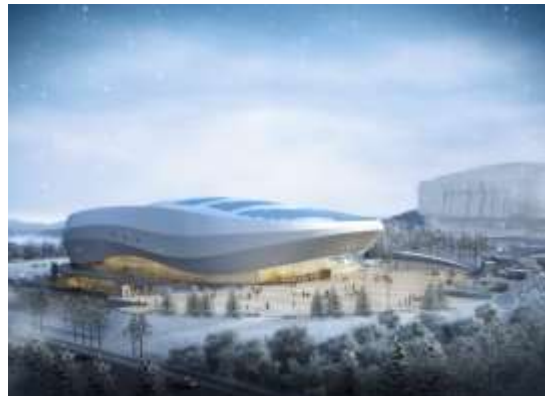
**Gangneung
Hockey Centre (IH 1)**



**Gangneung
Curling Centre**



**Gangneung Oval (SS)
(Speed Skating)**



**Gangneung Ice Arena
(Short Track, Figure)**



Media Village

**Coastal Cluster
(Gangneung)**



2 - 3. Venues (Jeongseon & Bokwang) (3/3)



**Jeongseon
Alpine Centre (Alpine Speed)**



**Bokwang Snow Park
(Snowboard & Freestyle skiing)**



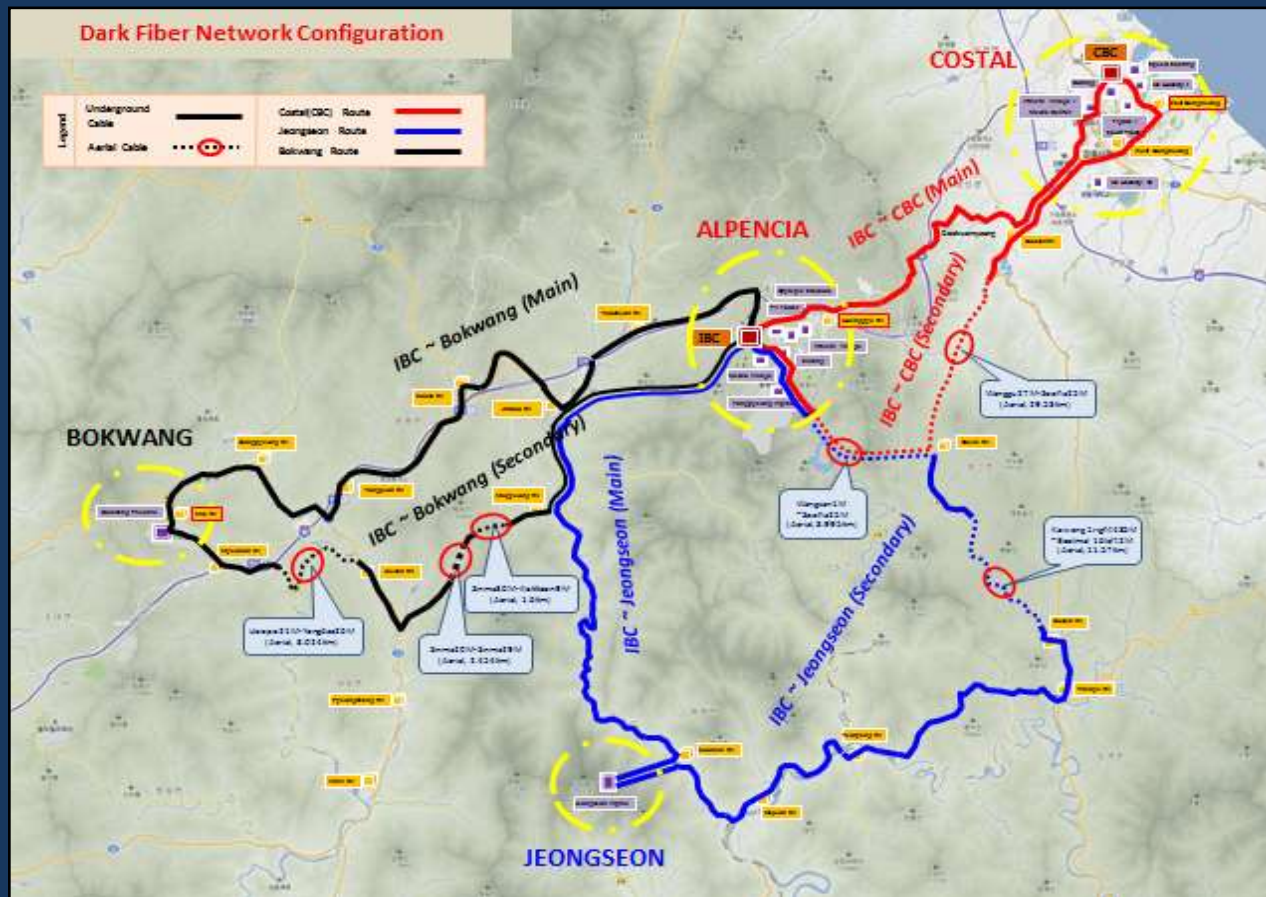
3. ICT Infrastructure for Pyeong-Chang

#1 Stability

#2 Cost effectiveness



3 - 1. Network Infrastructure

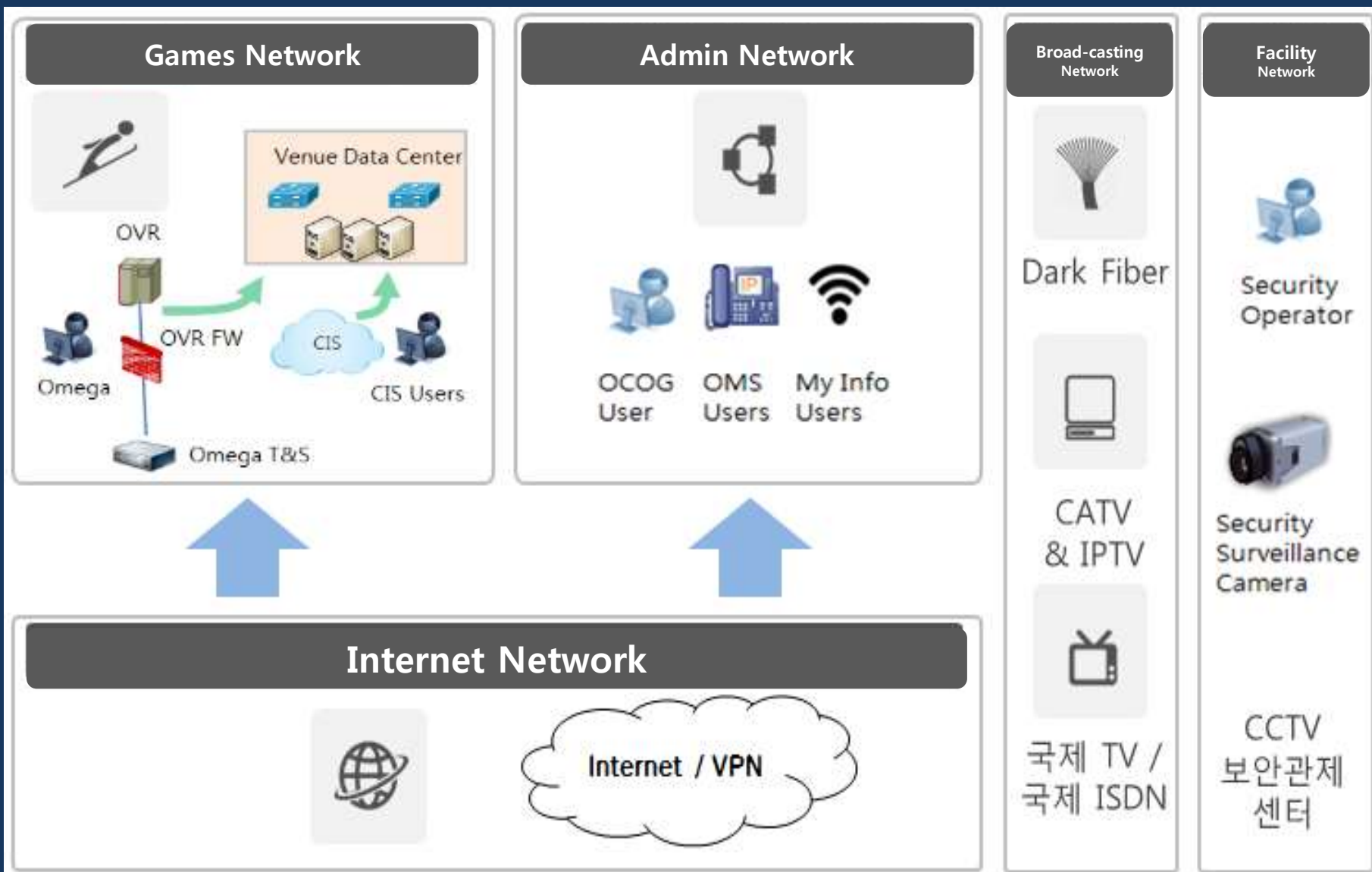


2,263,
the number of
Network
Devices for
Olympic
dedicated
networks;

- 1) Games Network,
- 2) Admin N/W,
- 3) Broadcasting N/W,
- 4) Facility N/W

Network conduit : 1,391Km

3 - 2. Olympic Network Services



3 - 3. IT Devices & Equipment

- Laptop
 - 2,100
expected



- Desktop
 - (including peripherals)
 - 11,000 *expected*



- Wifi
 - 3,500
expected



- Mobile
 - 16,000
expected

- Tablet PC
 - 1,520
expected



- Reprographics
 - 3,255
expected

3 - 4. SW Applications

- **Olympic Management System (9)**
 - Accreditation, Workforce Management, Competition Schedule, Volunteer Portal, etc
- **Olympic Diffusion System (14)**
 - Info2018/MyInfo, Commentary Information System, DATA Feed, etc



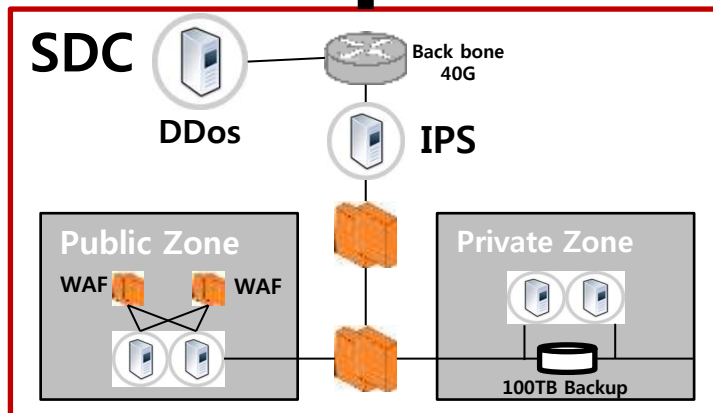
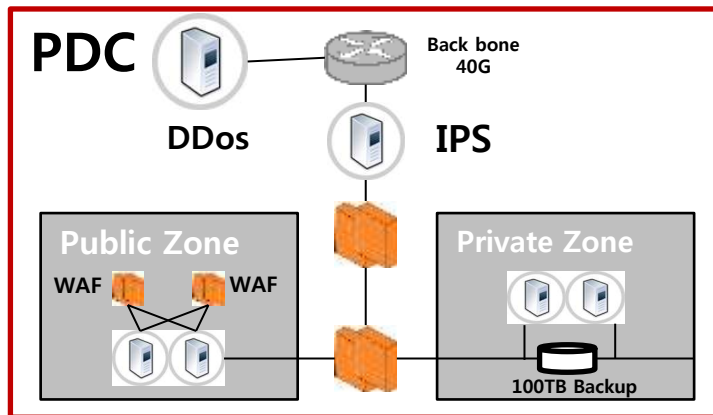
- **Games Management System/WEB (42)**
 - **GMS** : Transportation, Accommodation, Culture, etc
 - **Web** : Pre-Games, Game-Time, Test Event, etc

- **Administration System (8)**
 - Management of Projects, Knowledge, Archive, Risk, On-nara, Collaboration, Integrated Finance, Internal Portals, etc

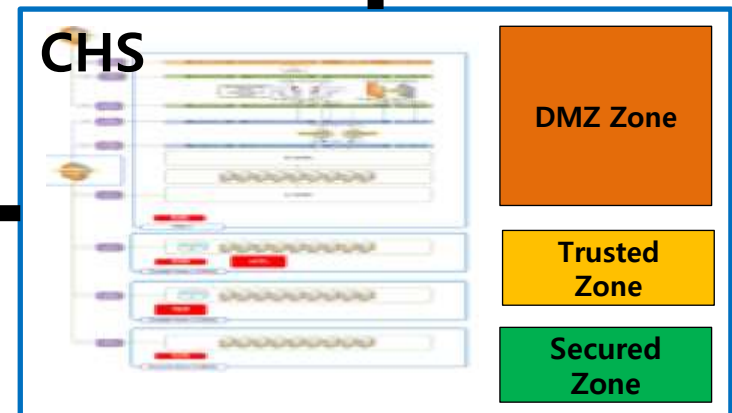
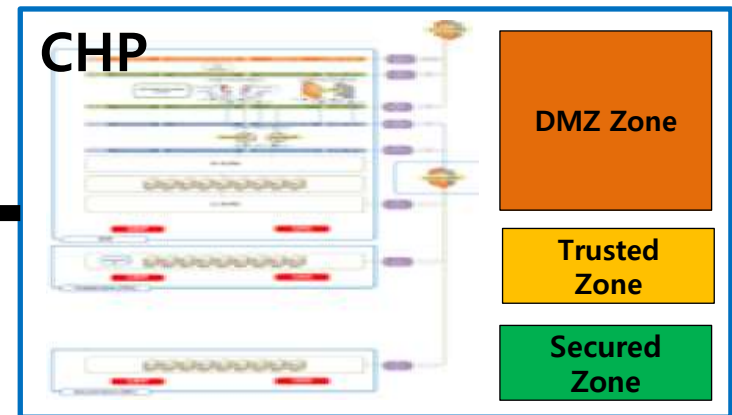


3 - 5. Data Centers

PDC/SDC(Korea)



CHP/CHS(Netherlands)



3 - 6. PyeongChang2018 Homepage



PyeongChang2018 Page on IOC's Official Website

Olympic.org
Official website of the Olympic Movement

English | Français | Follow us

Search all results & Olympic medalists

Home **Olympic Games** YOG Sports Athletes Countries Olympism Photos Videos The IOC News

IOC THE OLYMPIC MUSEUM IOC SHOP

Home > Olympic Games > PyeongChang 2018

PYEONGCHANG 2018
9th February - 25th February

PyeongChang will host the XXIII Olympic Winter Games in 2018.

PYEONGCHANG 2018 HIGHLIGHTS

- PyeongChang 2018 Launches Official Emblem
- IOC elects PyeongChang as the host city of 2...
- "New Horizons" for 2018
- IOC Observer Programme provides "behind the ...

LATEST PYEONGCHANG 2018 NEWS

- PyeongChang 2018 celebrates 1,000 days to go with new slogan
16/05/2015
The PyeongChang 2018 Organising Committee (POCOG) has

PyeongChang 2018
982 DAYS TO GO

PyeongChang 2018
Passion. Connected.
하나된 열정

2018평창동계올림픽대회까지 남은기간

960 일
시 분 초
08 43 27

OMEGA
OFFICIAL TIMEKEEPER

2018.2.9-2.25 17일간

보도자료 공지사항

선수촌 명칭 최종확정 15-06-16

3 - 7. Olympic & ICT

- ICT is an essential means to run a successful Olympics
- Olympic operations are in fact impossible without the support of the ICT



4. ICT & Olympics

4 - 1. ICT Trend



4 - 2. ICT & Olympic Paradigm

Size of the stadium

Constraints of Space



Traditional Olympics

Watching at the stadium

How many cameras

Constraints of Time



Media Olympics

Watching in the living room

LA Olympics
(1984)

The amount of data

Beyond space & time



Internet Olympics

Anytime anywhere

London Olympics
(2012)

Network speed

Realistic Service



PyeongChang 2018

Personalized Olympic Games

Participation, Sharing

4 - 3. ICT & Olympic Paradigm



2008
Beijing

Science
Technology
Olympics by ICT

- Wired internet based live broadcasting
- RFID admission, ticket & Face recognition technology



2010
Vancouver

The first year of
Twitter Olympics

- 3G based wireless service supply
- Real-time game information provided by smart device and PC



2012
London

SNS based
Social Olympics

- Spectator's direct shooting scenes shared by SNS
- Real-time language translation services for developing countries

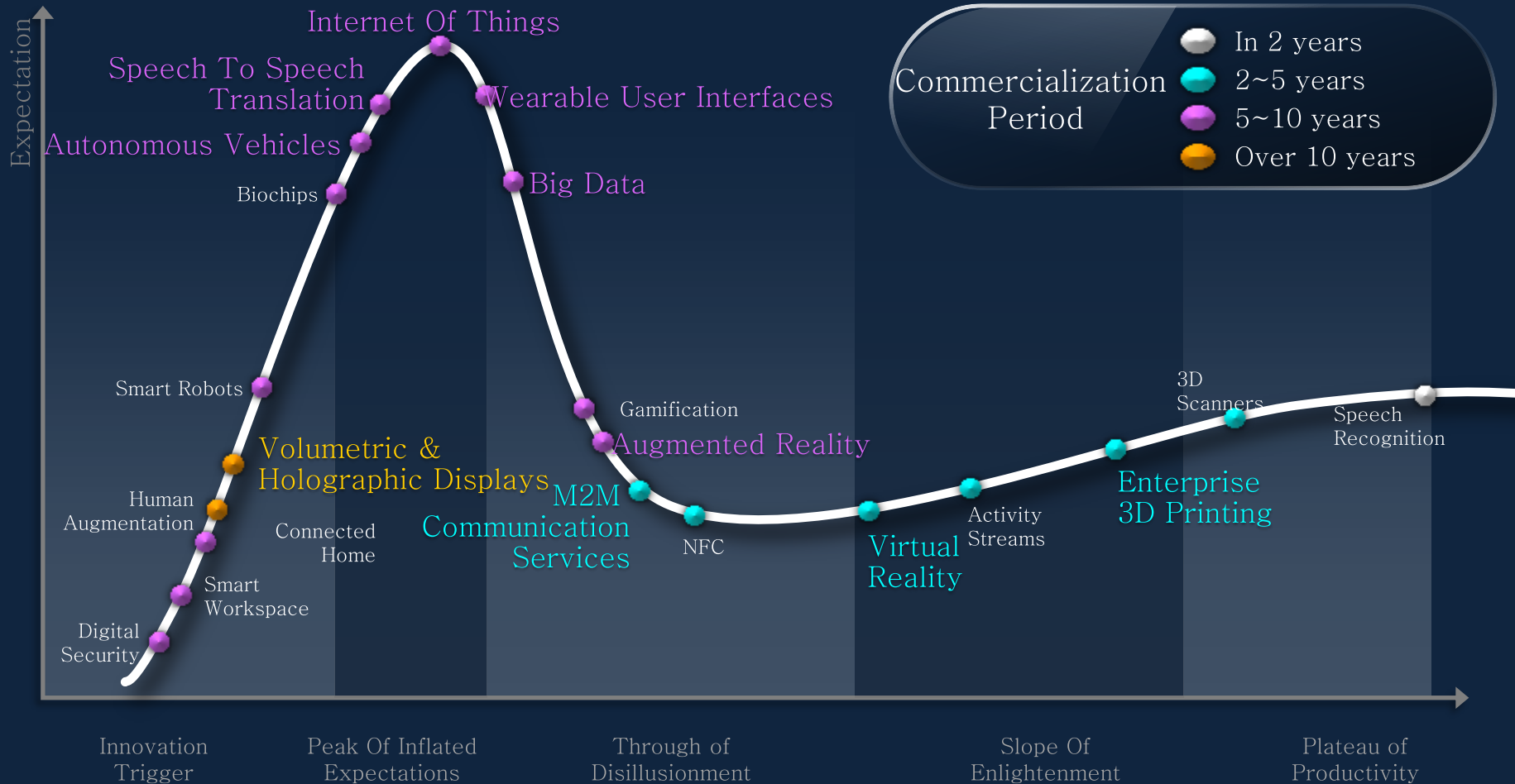


2014
Sochi

BYOD Olympics
Free Wi-Fi

- BYOD (Bring Your Own Device) Olympic by Network Virtualization Technology
- Free High Speed Wi-Fi AP supply

4 - 4. ICT Future



※ Hype Cycle for Emerging Technologies,
2014(Gartner, '14.08.11)

5. Pyeong-Chang ICT Olympic

5-1 Vision & Goals for the ICT Olympic

K-ICT Olympic Strategy

**World' s 1st
5G Olympic**

- 5G demonstrative network
- 5G-based realistic media
- Giga WiFi zones

**IOT
Olympic**

- Customized Services
- Intelligent Services
- Performance Increase

**UHD
Olympic**

- 1st 4K UHD Broadcast
- Active personal SNS activities
- Multi-side video system

5 - 2. 1st 5G Olympic (1/3)

✓ 1st 5G demonstrative network

- Olympic venues (i.e. Press Center, etc)
- Attentive areas (i.e. Airport, etc)

✓ 5G-based realistic media

- Demonstration of hologram, super multi view, virtual reality, etc



✓ Giga WiFi

- The best telecommunications environment focused on user concentrated areas



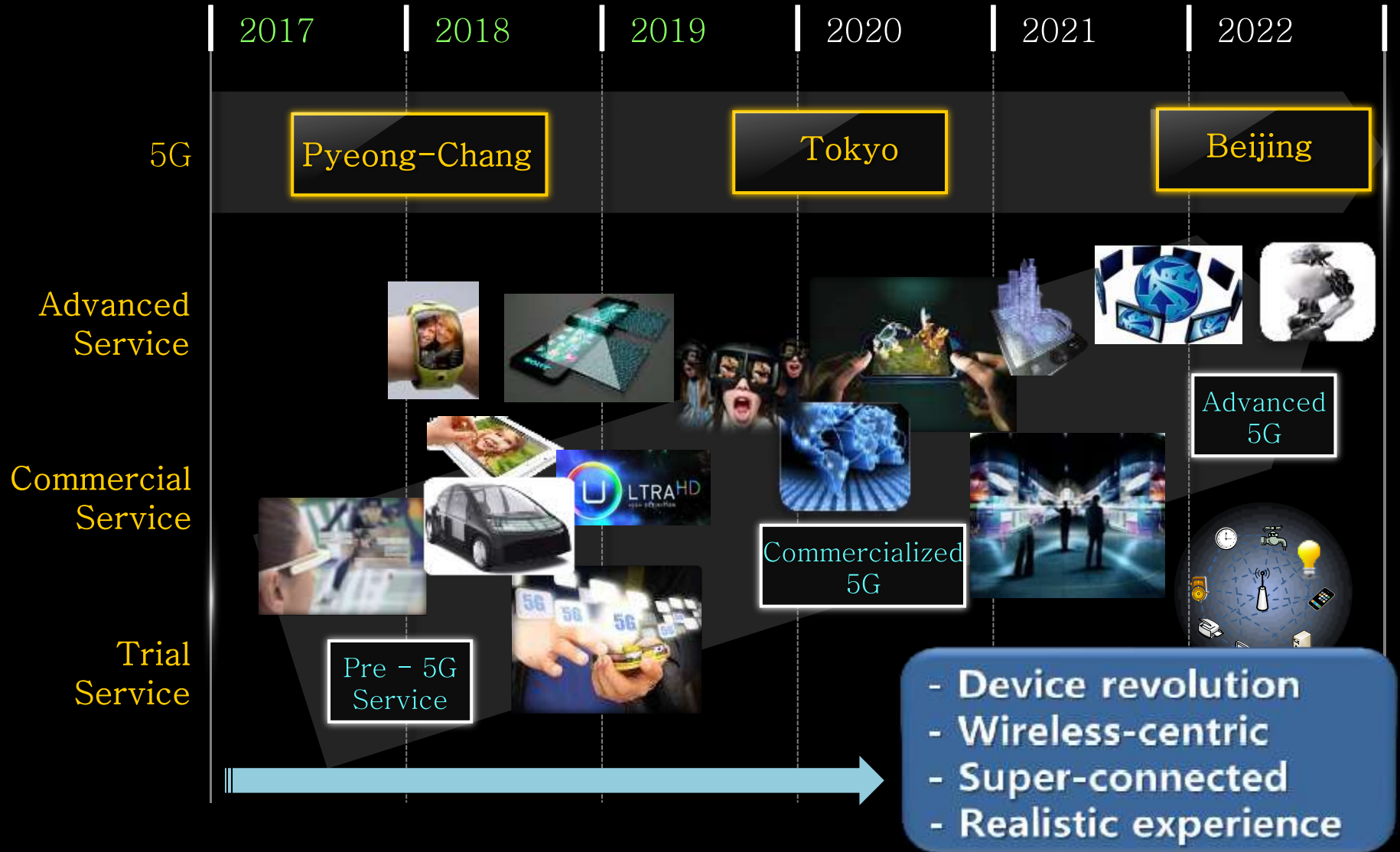
5 - 2. Korea-Japan-China (2/3)

Olympic Triangle, 5G Triangle

5G



5 - 2. 5G Innovation (3/3)



5-3 IoT Olympic

✓ Customized

- Smart delivery and Auto guide of customs, traffic, competitions
- Auto-translation (App)



✓ Intellectual

- High-tech traffic and disaster services via ITS and drones



✓ Performing

- Customized training and race strategy analysis through IoT and big data technology



5-4 UHD Olympic

✓ The 1st UHD Broadcast

- 1st terrestrial 4K UHD commercialization
- Demonstrative 8K UHD Service
- Various UHD Contents



✓ Active personal SNS activities

- Selective viewing service of athletes and viewers for the competition images
- Capturing on-site with personal devices

✓ Demonstrate Multiside Videoboard

- Real-time 3 sided viewing service of opening & closing ceremonies in theatres





2018 ICT Games



Thank you