Global Business

Akihiko Kumagai, Senior Executive Vice President
Mid-term Management Plan Target

**Profitable Growth**

FY2020 Target: Adjusted operating margin 5%

### Main business | Main products
--- | ---
Safer Cities | Public safety solutions, Digital government platform
Service Provider | Software services, Optical/IP network
Energy | Energy Storage System
Wireless | Mobile backhaul (PASOLINK)
Submarine Network | Submarine cable
Displays | Displays, Projectors

### Adjusted operating profit (loss)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (¥bn)</td>
<td>409</td>
<td>570-600</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prioritize profits

Prioritize growth

Growth business

By FY20, we aim for

- Safer Cities
- Service Provider
- Energy
- Wireless
- Submarine Network
- Displays/others

Base Business

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Significant improvement in operational profitability excluding one-time cost; on track for positive profit in FY19

$\text{(¥100mn)}$

<table>
<thead>
<tr>
<th>Improvement of business profitability</th>
<th>One-time cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Safer Cities</td>
<td>▲ 200</td>
</tr>
<tr>
<td>• Wireless etc.</td>
<td></td>
</tr>
<tr>
<td>• Asset Optimization</td>
<td>△ 120</td>
</tr>
<tr>
<td>• Structural improvement cost</td>
<td>△ 50</td>
</tr>
<tr>
<td>• Investment to improve profitability</td>
<td>△ 30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FY17 Adjusted operating loss</th>
<th>▲ 240</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2017 One-time cost</td>
<td>+60</td>
</tr>
<tr>
<td>FY2018 Adjusted operating loss</td>
<td>▲ 225</td>
</tr>
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</table>

Revenue

- FY2017: 4,205
- FY2018: 4,094 (▲3% YoY)
Summary of FY2018

Key Achievements

- **Securing future growth**
  - M&A: Acquisition of KMD (Revenue: ¥90bn)
  - Synergy with NPS (London Metropolitan Police orders)
  - Order increase: +21% YoY
  - Submarine NW, Services Provider (NetCracker), Energy

- **Improving profitability**
  - Safer Cities: Positive profit achieved
  - Wireless: On track for positive profit in FY2019
  - Structural reform/impairment: Annual impact of +¥5bn from FY2019

Challenge

- Displays: Intensified competition in North American Market
- Energy: Profitability improvement
Out of ¥39.5bn profit increase, ¥33.9bn comes from the measures implemented in FY2018
Remaining ¥5.6bn to be achieved by top line growth from orders accumulated in 2018 in Service Provider, Submarine NW and others

Unit: (¥100mn)

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY18 Adjusted Operating Loss</td>
<td>-225</td>
</tr>
<tr>
<td>FY19E Adjusted Operating Profit</td>
<td>170</td>
</tr>
<tr>
<td>Effect of structural improvement</td>
<td>+50</td>
</tr>
<tr>
<td>Revenue</td>
<td>4,094</td>
</tr>
<tr>
<td>Improvement of business profitability</td>
<td>+145</td>
</tr>
</tbody>
</table>

- Safer Cities KMD consolidation +71
- Wireless R&D cost improvement +18
- Improvement from revenue increase and cost reduction +56

Revenue: 5,500 (+34% YoY)
FY2019 Focused Initiatives

Measures to improve profitability (+14.5bn)

- **Safer Cities**
  - Steady PMI of KMD (consolidation of KMD) *
  - Airport ID Business startup/ increase of service business

- **Service Provider**
  - Sales conversion of large orders received in 2018 (NetCracker OSS/BSS business)

- **Wireless**
  - Continue selective order taking prioritizing profitability
  - Leverage R&D co-development agreement with Ceragon *

- **Submarine network**
  - Profit increase through increased revenue from backlogs built in 2018
  - Productivity growth through increased volume

- **Energy**
  - Improve profitability towards 2020 through partnership strategies

* The total effects of the measures implemented in FY2018: ¥8.9bn
To Achieve Mid-term Management Plan

Financial Target (FY2020)

- **Revenue**: ¥570bn - ¥600bn
- **Adjusted Operating Margin**: 5%

Measures

1. **Safer Cities Business**
   - Secure growth/profitability through Airport ID Business
   - Increase synergy with NPS/KMD
   - Intensive approach to Indian market

2. **Service Provider Business**
   - Expand software services business in response to DX demand
   - Develop foundation of 5G network business

3. **Energy Business**
   - Enhanced profitability by reducing costs, shifting to services business, and partnering
   (Profitability achieved in FY2020)

DX: Digital transformation
Revenue Target for FY20: ¥200bn

**Organic**
- Secure growth & profitability with Airport ID business and expansion to other industries
- Intensive approach to Indian market

**Inorganic**
- Maximize synergy among NPS, KMD & NEC
  - Collaboration in strategic projects
  - Promote additional M&As
  - Cost reduction through utilization of development center in India

<table>
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<tr>
<th>FY 17</th>
<th>FY18</th>
<th>FY19E</th>
<th>FY20 Target</th>
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<tbody>
<tr>
<td>¥50bn</td>
<td>¥75bn</td>
<td>Approx. ¥175bn</td>
<td>¥200bn</td>
</tr>
<tr>
<td>Approx. ¥50bn</td>
<td>Approx. ¥75bn</td>
<td>Inorganic</td>
<td></td>
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</tbody>
</table>

Revenue
Airport ID Business

- Solution focusing on Door to Door CX for travelers (Add value to travelers and airport operators)
- Expanding scope of application to other industries (Stadium, Hospitality, etc.)

CX: Customer Experience
Service Provider Business Strategy

Accelerating software business growth and establishing foundation of 5G network business

- **Software Services**
  - DX-related demand from major telecommunications carriers is strong in preparation for 5G era (large scale orders of OSS/BSS increasing)
  - Double-digit YoY order growth in NetCracker

- **5G Network**
  - Start building business base, leveraging partnership / start building track-record in advanced 5G markets and geopolitically favorable markets
    - Develop business through NEC-Samsung collaboration
    - Develop business at open-oriented carriers, triggered by base station orders from Rakuten (Open vRAN)
Timeline for 5G Era

Market

Our Initiatives (Overseas)

5G network area

US, South Korea, etc.
Innovator Market

Advanced European Countries, Japan, etc.
Early Adopter Market

Full-fledged expansion of 5G market
Majority Market

5G network area

Software Service area

DX of OSS/BSS

2018

2019

2020

2021~

Growth leveraging NEC-Samsung collaboration

Growth targeting open-oriented carriers

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Growth targeting open-oriented carriers
Energy Business Strategy

Improve profitability through cost reduction and shift to service business while maintaining Global Top 3 position

- Improve gross margin of core business, Grid Storage System (GSS)
  - Cost reduction by shifting to multiple sourcing of batteries
  - Formation and selection of high-profit projects by utilizing funds etc.

- Improve profitability
  - Expansion of software and services type business
  - Expansion of channel partner network for high-profit products such as ALM and UPS

- Promote partnerships
  - Considering partnering for strengthening profitability/competitiveness and market expansion

ALM: Advanced Lithium-ion Module, UPS: Uninterruptible Power Supply
Summary

Profitable Growth

FY2020 Target: Adjusted operating margin of 5%

To achieve Mid-term Management Plan 2020, accelerating Profitable Growth initiatives in the three businesses

(1) **Safer Cities Business**
   Launch and horizontal expansion of Airport ID business. Increase synergy with NPS/KMD

(2) **Service Provider Business**
   Focus on software service business at NetCracker

(3) **Energy Business**
   Improve profitability by reducing costs, shifting to service business, and partnering (positive profit in FY2020)
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