



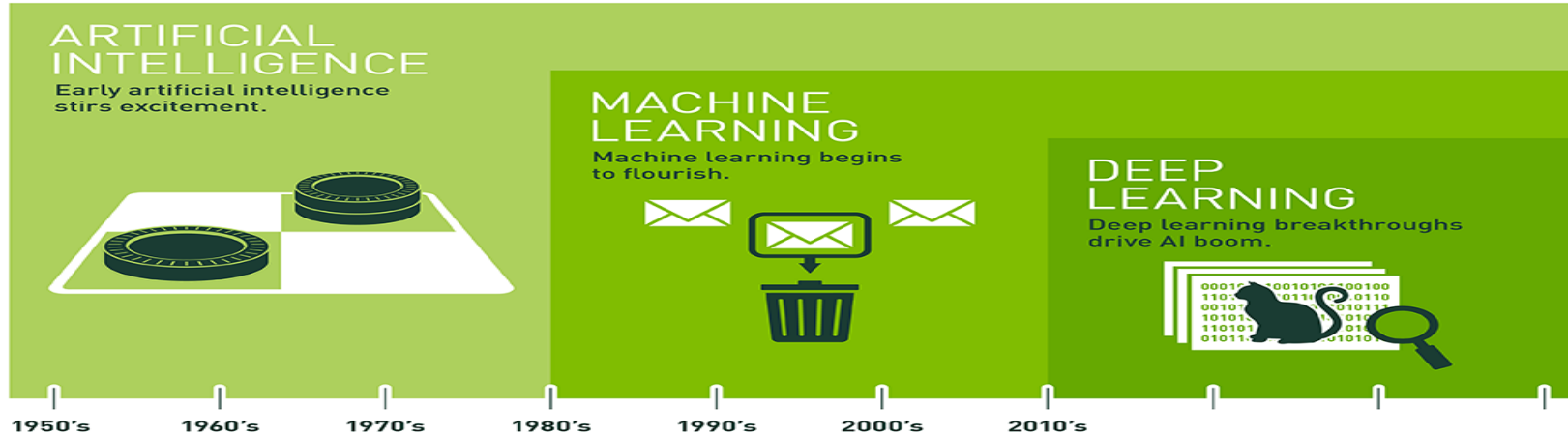
HPE-베이넥스 서버 비즈니스 파트너를 위한 솔루션 소개

2020년 10월 13일(화) 15:00 - 16:30

BNS 서버 기반 AlaaS 솔루션 스택의 구성

베이넥스 | 전우정 상무

AI(Artificial Intelligence)란

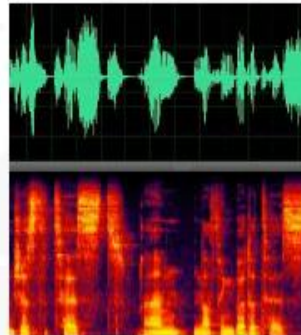


Since an early flush of optimism in the 1950s, smaller subsets of artificial intelligence – first machine learning, then deep learning, a subset of machine learning – have created ever larger disruptions.

이미지 이해



음성 인식



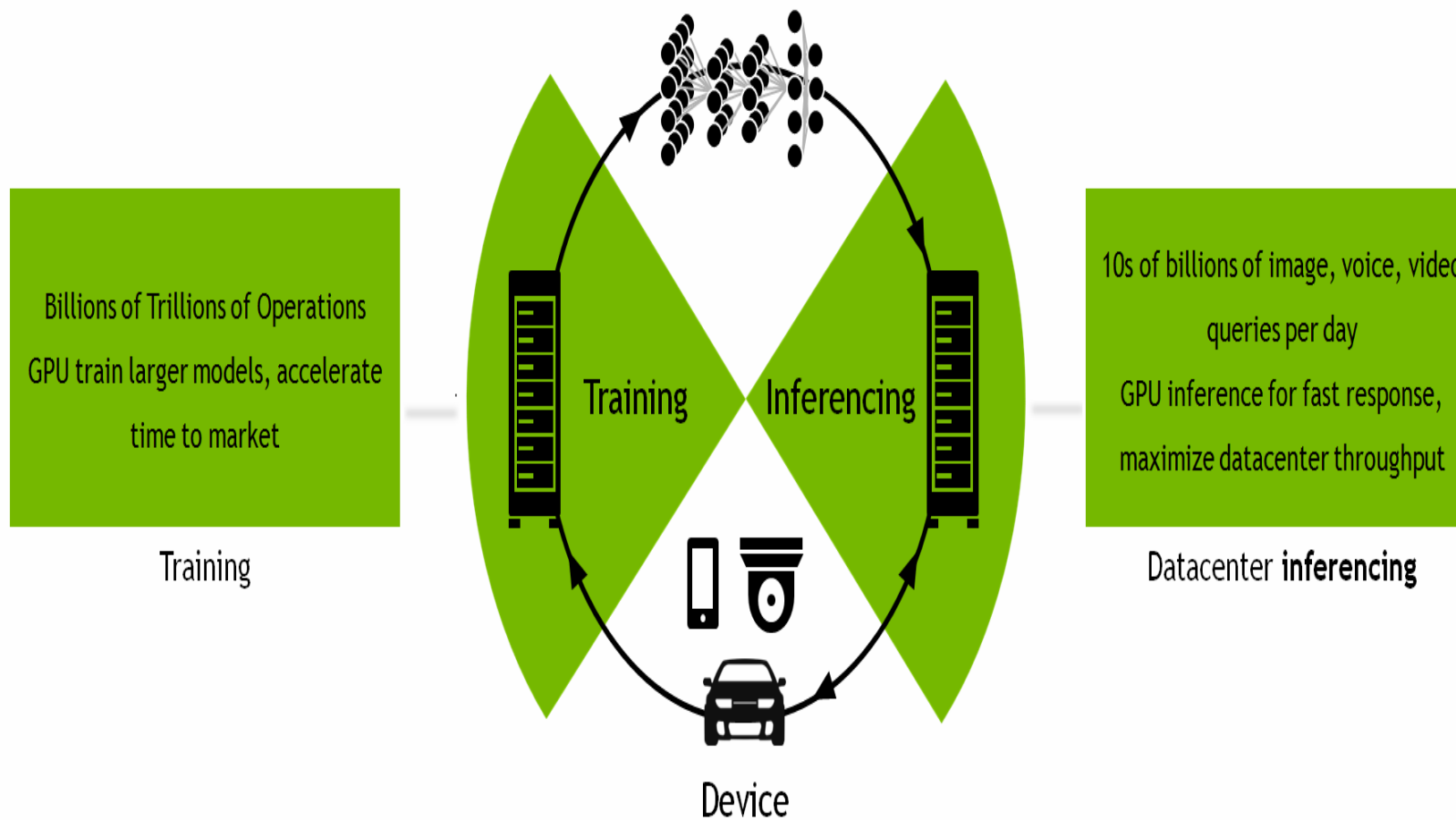
자연어 처리



자율주행

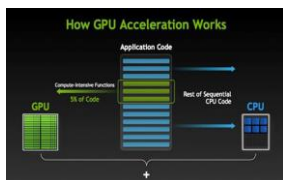


AI의 훈련과 추론



인공지능 부활의 원동력

Computing Power
강력한 병렬 및 분산처리 능력



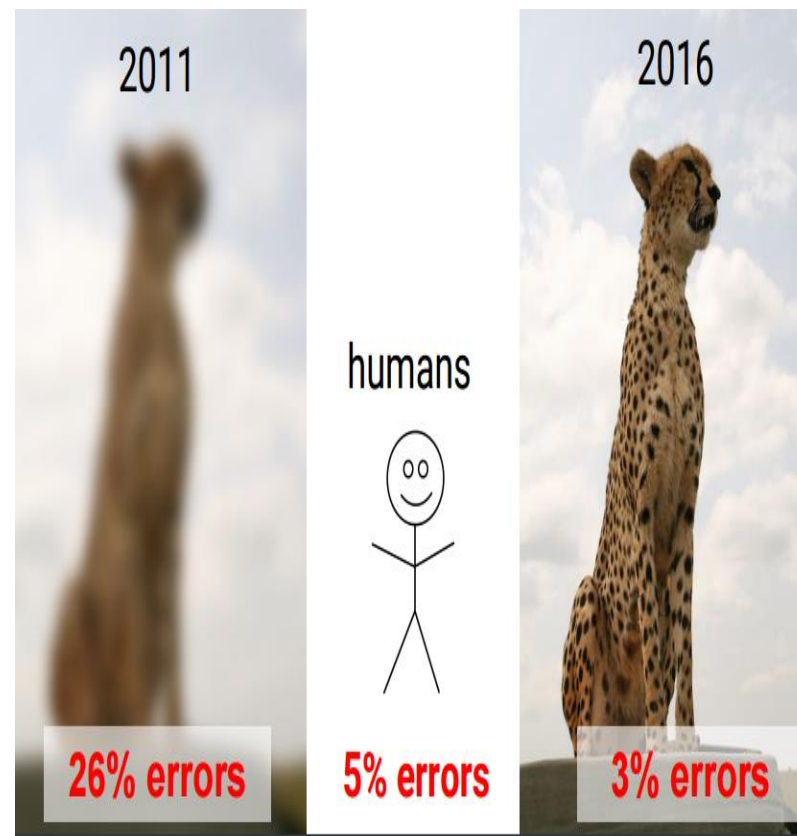
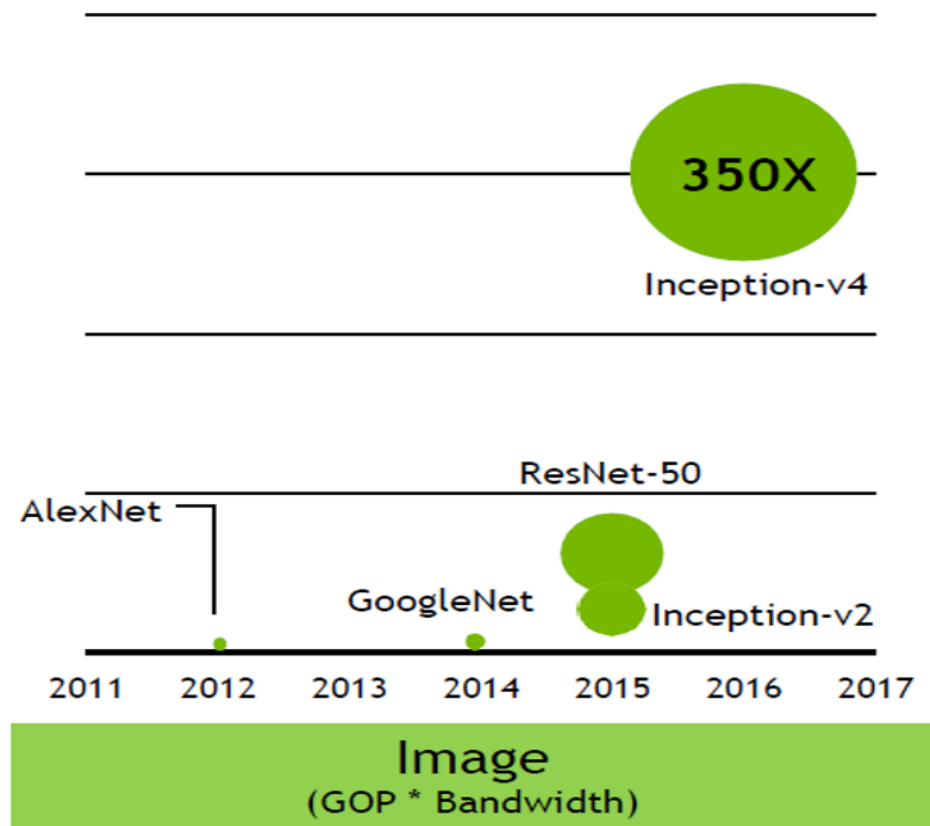
Big Data Power
인터넷, IOT, Sensor 기술을 통한 수집능력



**알고리즘
공개소프트웨어**
개방·공유·협업의 성과



인식율의 개선



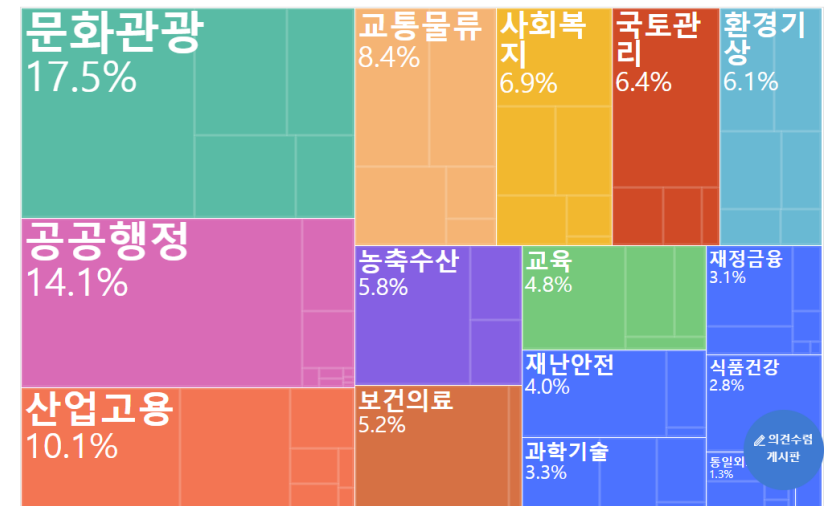
AlaaS ; background & target

Background

AI Data 확보 vs. 개인정보보호법 등 법령에 의한 규제
공공 AI data 구축 및 개방을 위한 service platform 구현 필요
Public Cloud 보다는 기관 내, 혹은 협약에 의한 platform 구축 필요
AlaaS platform 구축으로 지속적인 인프라 재활용 가능

Target

AlaaS Infra 구축 Deal leading
공공 SI - On premise cloud service
NIA, NIPA data 주관기관
공공 연구소 등 research



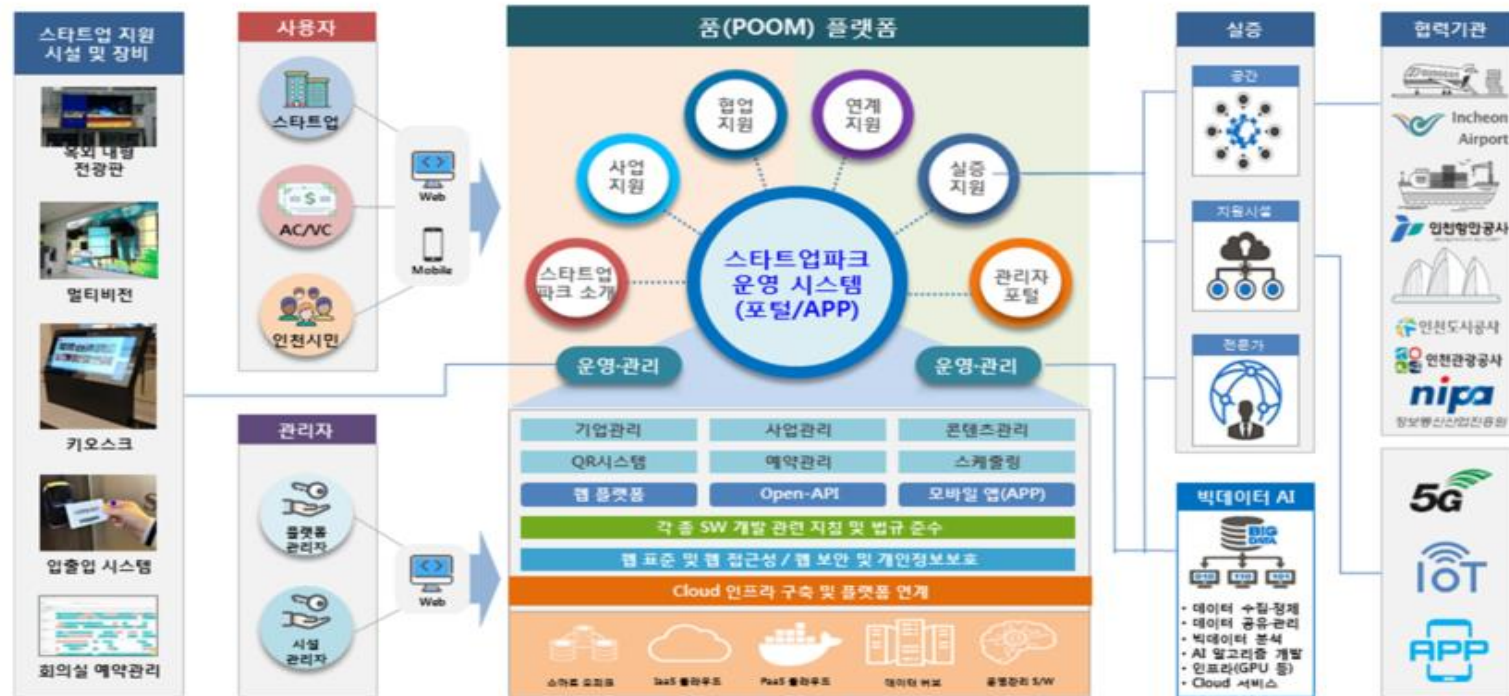
AlaaS 구성 목표

Backgroud : AlaaS infra 구성 요소에 대한 이해 및 협력관계가 중요함

목표 : AlaaS Infra 구축 Deal leading

Target : 공공 SI - On premise 형태의 자체적인 cloud service 구현

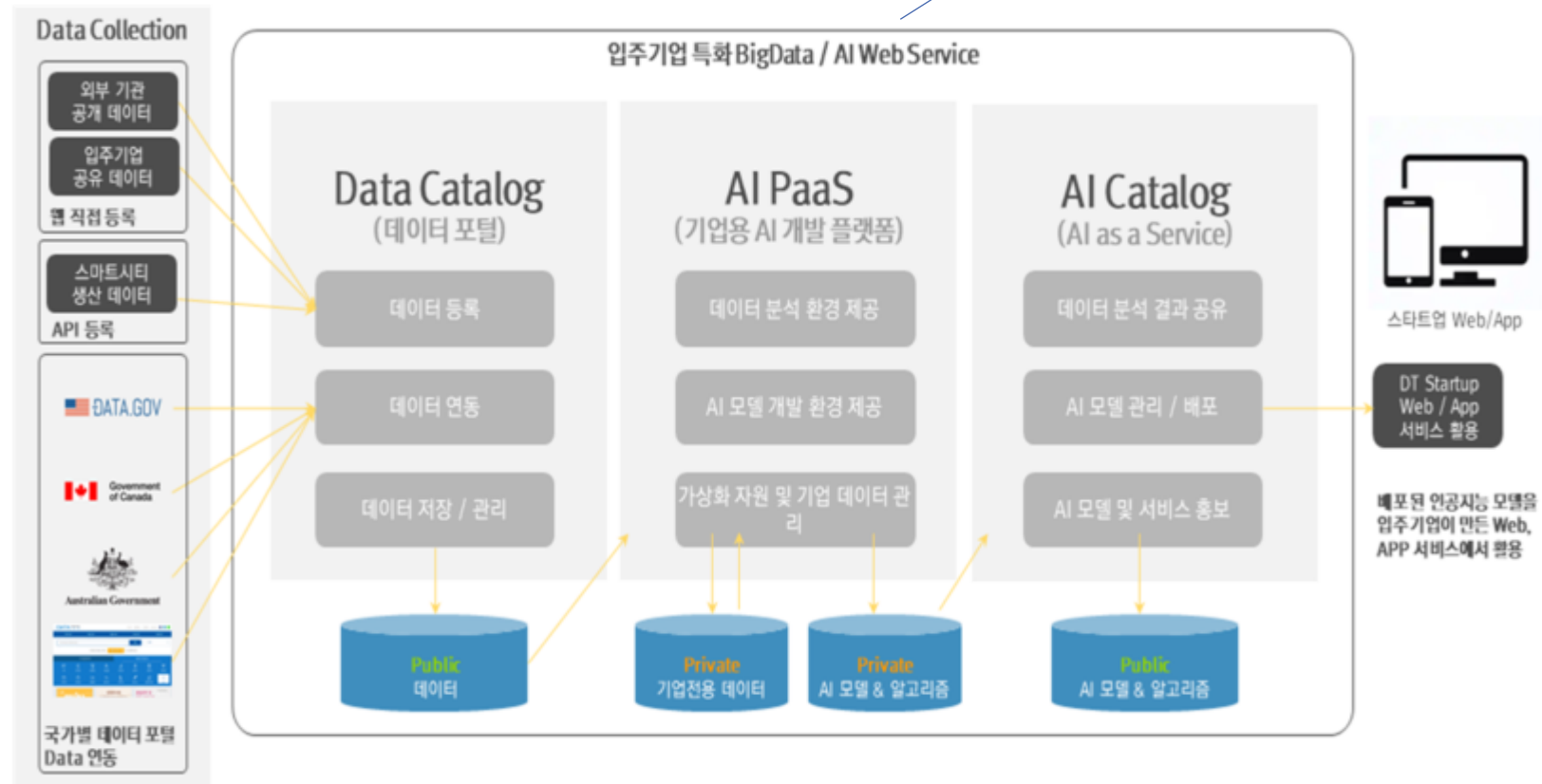
□ 플랫폼 구성도



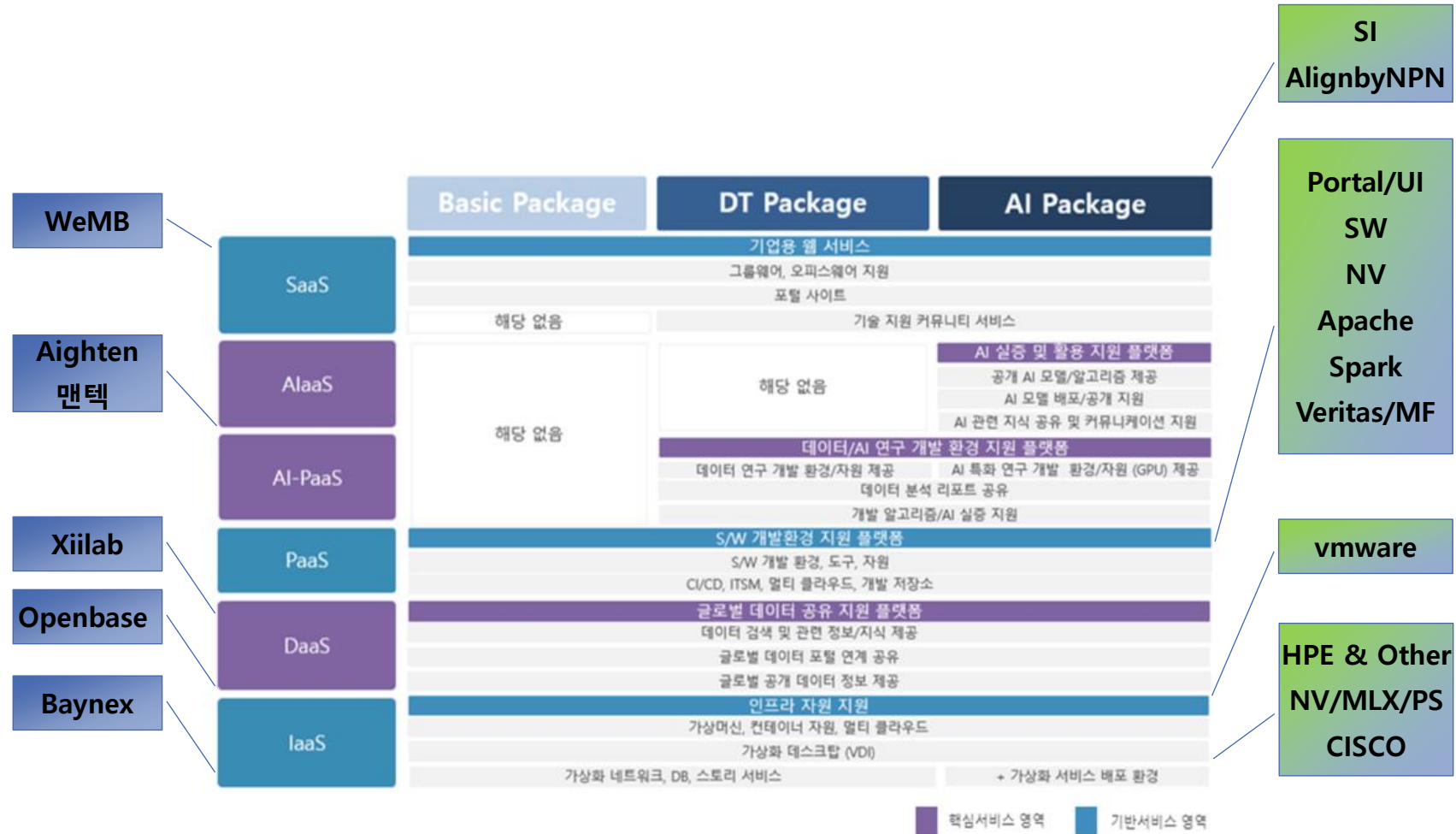
AlaaS AI DATA platform, with Xiilab

□ 빅데이터·AI 플랫폼 구축방안

Public data(공공)와 private data(기업용) 분리 필요
ML modeling framework/algorithm 지원 partner
Inference를 위한 IoT/edge platform 제품화 목표



AlaaS sales strategy

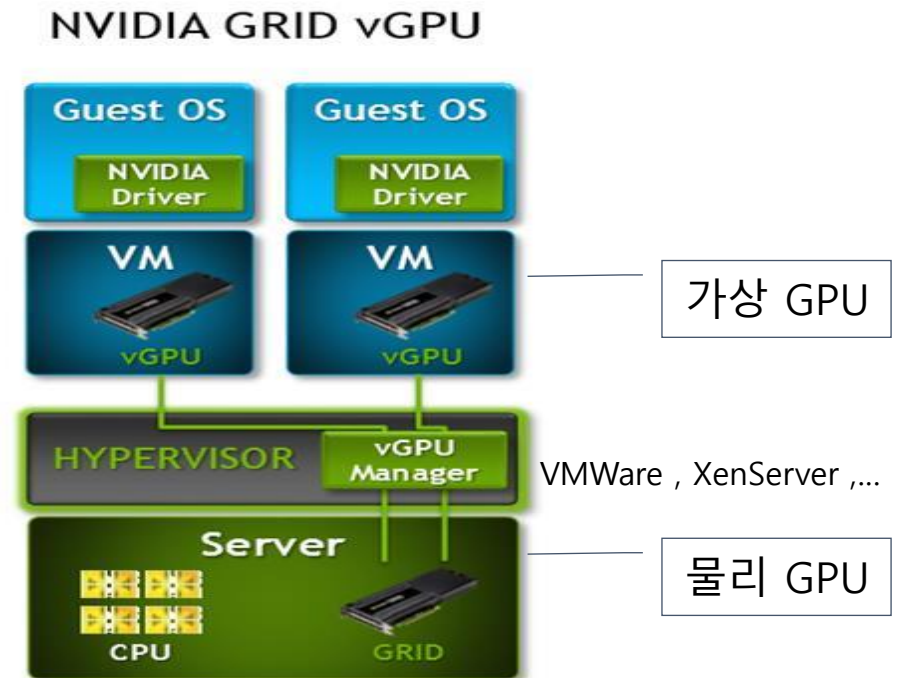


AlaaS 가상화

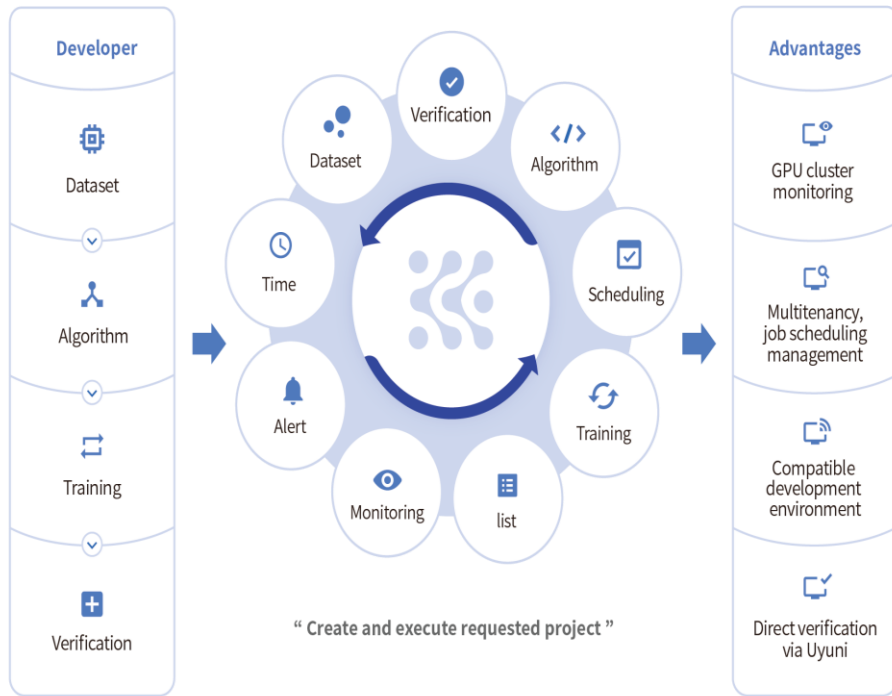
Pass-through



NVIDIA vGPU

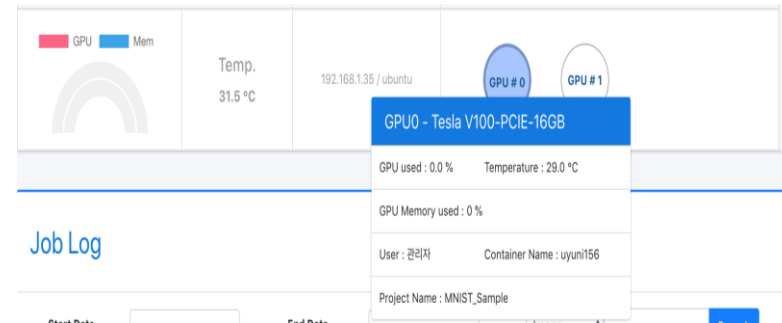


GPU Cluster : Uyuni



Key Feature

- GPU Cluster 모니터 링 기능
- 편리한 GPU 자원 할 당 기능
- 딥러닝 작업 관리 기 능
- 다양한 운영 관리 기 능 지원



```

Container Information
GPU 0% GPU MEM 0%
root@3a92b3a43153:~# nvidia-smi
Wed Mar  6 06:09:17 2019

+-----+
| NVIDIA-SMI 384.130           Driver Version: 384.130           |
+-----+-----+
| GPU   Name           Persistence-M| Bus-Id        Disp.A | Volatile Uncorr. ECC |
| Fan  Temp  Perf    Pwr:Usage/Cap|  Memory-Usage | GPU-Util  Compute M. |
+-----+-----+
|  0   Tesla V100-PCIE...    Off      | 00000000:3B:00:0 | Off      | 0
| N/A   29C    P0     34W / 250W   | 0MiB / 16152MiB |           | Default |
+-----+-----+

Processes:
GPU   PID   Type   Process name                      GPU Memory
Usage
+-----+-----+
| No running processes found |
+-----+-----+
    
```

X Labeller

The screenshot displays the X Labeller software interface. On the left is a sidebar with a list of datasets, including 'facial_expression' (highlighted in blue), 'i3_replica', 'i3', 'face_expression', 'people_total_replica', 'people_total', 'people_worker2', 'people_worker1', 'people_dataset_result', 'people_dataset_replica', 'people_dataset', '201901_replica_0.5_1', 'addimage', and '201901_replica_0.9'. The main 'Canvas' area shows a large image of a person in a dark jacket with a green bounding box around their face. Below the canvas, there are controls for 'Data', 'Collision Batch processing' (set to 'none'), and 'Label Batch Transfer'. At the bottom of the canvas, a horizontal strip of smaller images shows a sequence of frames from the video. On the right side, the 'Tag' section contains a '#' symbol. Below it, the 'Layer' section shows a selected layer 'facial_expression_34675'. Underneath, two small image thumbnails are shown, each with a 'smile' label and a pencil icon for editing.

AlaaS ecosystem

구분	제품	기타
Job Scheduler & GPU Cluster SW	Xiilab – Uyuni, Uyuni Cloud	
Cloud service	Aighten Vmware – vCloud	
Network 가상화	Vmware NSX	
Data annotation	Xiilab – Xlabeller	
Portal / UI	WeMB	
Infra	Baynex	NVIDIA, HPE, Mellanox, Purestorage
Vmware	Openbase	
Modeling		
Apache Spark		
Sales Partner : NVIDIA NPN partners, Purestorage Partners		



HPE-베이넥스
서버 비즈니스 파트너를 위한 솔루션 소개

Thank you