
AWS
re:Invent
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SPT301

Sustainability in sports venues

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Disruption in the sports industry…



Disruption of traditional media and broadcasting



Changing fan behavior



Technology – AI, cloud, 5G, wearables, VR



Rapidly growing eSports fanbase



Smart stadium

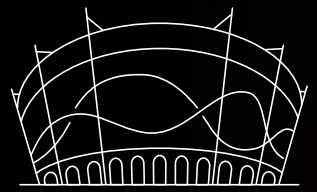


Digital athlete

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Challenges and opportunities for sports venues

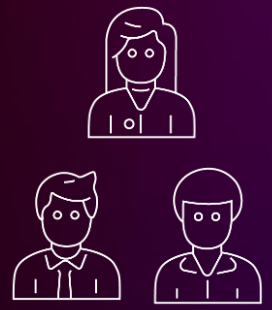
Changes in fan expectations, an increase in stadium technology complexity, and societal evolutions



Technologically innovate while operating a profitable, safe, fun, and secure venue with limited staff and resources



Increasing demand for sustainable and socially conscious venues and organizations



Fan expectations for venues and events are more demanding with return to live events

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Sustainable venue operations is good business

Now a very important corporate discipline, both to avoid negative outcomes and to capture new opportunities:

- Experience cost savings and avoid financial penalties
- Avoid losing revenue opportunities (e.g., concert artists)
- Enhance brand exposure
- Improve employee recruiting and retention

48%

OF VENUES REPORTED AN INCREASE IN SPONSORSHIP REVENUE DUE TO A SUSTAINABILITY PROGRAM[1]

11%

REVENUE GROWTH OVER THE NEXT THREE YEARS FOR RIGHTS HOLDERS WITH A SUSTAINABLITY AGENDA[2]

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[1]Sustainable Sports Index Benchmarking Report, 2022
[2]Nielsen Sports Analysis: https://tinyurl.com/5n6v4ze9

AWS smart venue solutions

Fan-360 solutions

AWS Partner solutions

External apps & sites

Dashboards & analytics

Fan identity

Stadium data platform

Stadium data lakes, data stores

Analytics/AI/ML

Digital twin(s)

Plug-and-play integration services

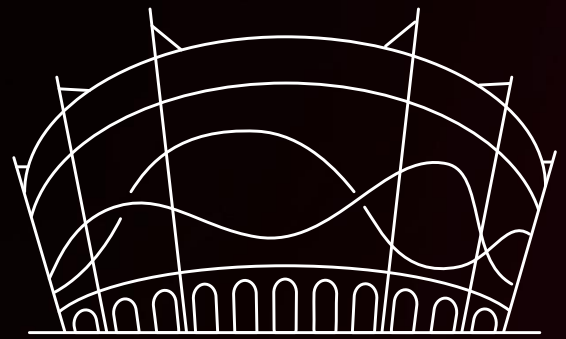
Smart campus

Digital credentials and entry

Wayfinding and transportation

Security and crowd operations

In-venue fan engagement



Concessions/ merchandising

Ticketing/digital souvenirs

Sustainable venue management

In-venue ads and marketing

5G

Wi-Fi 6

Ethernet

LoRaWAN

IoT sensors

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AWS sustainable venue management

Carbon tracking, reporting, and disclosure

Facility energy and water usage, cost tracking, and optimization

Indoor environmental quality management

EV charging stations management

Facility operations sustainability dashboards

Sustainability and social reporting and benchmarking

BMS management and optimization

Predictive maintenance of facility equipment

Localized renewable energy management

Cloud BMS for smaller/less modern venues

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aws partner network

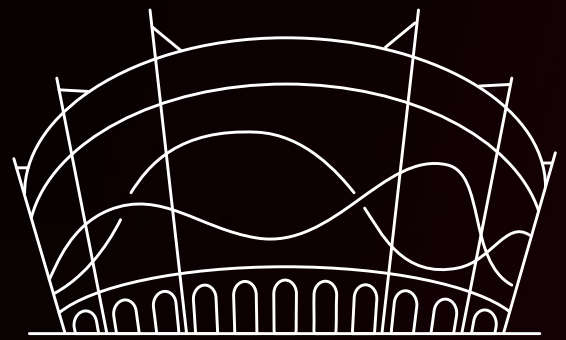
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Sustainable venue | Arena modernization

CHALLENGE

- Create the first International Living Future Institute-certified zero-carbon arena in the world.
- Transform the food and beverage concession experience from one of largely waiting in lines to frictionless selection and payment, allowing fans to get back to enjoying the game or concert.

SOLUTION

- Solar panels on the arena and garage, combined with offsite supplementary renewable energy, provide 100% renewable energy power.
- The deployment of Amazon One and Just Walk Out (JWO) technology at numerous food and beverage locations throughout the venue allows for fast and convenient purchases with a credit card swipe or wave of the palm.

BENEFIT

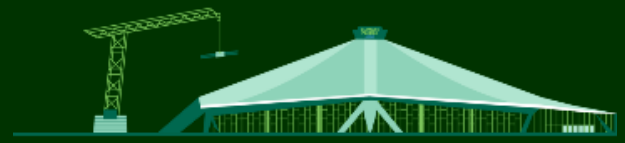
- More than just a name, CPA operates with zero single-use plastic, harvests rainwater from the roof to make the greenest ice surface in the NHL, and targets 97%+ diversion for in-venue waste (i.e., “zero waste”).
- JWO has optimized the fan food and beverage experience and allowed staff to focus on hospitality

> “For us, the fan experience inside Climate Pledge Arena is paramount; we want it to be simple, safe and fast for every guest. We are thrilled to work with Amazon to use their groundbreaking technology to make it as easy as hovering your palm, picking an item off a shelf, and leaving to make your purchase.”
>
> — **Todd Humphrey,** SVP of Digital Fan Experience for the Seattle Kraken

CLIMATE PLEDGE ARENA

About CPA

Opened in October of 2021, the home of both the NHL’s newest franchise, the Seattle Kraken, and the 4-time WNBA Champion Seattle Storm, Climate Pledge Arena set out to reimagine and redevelop a venue constructed under the historic landmark roof originally built for the 1962 Seattle World’s Fair. Named for Amazon’s Climate Pledge, the arena is leading by example – proving that a world-class modern arena can operate as carbon neutral.



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Reference architectures for sustainable venues

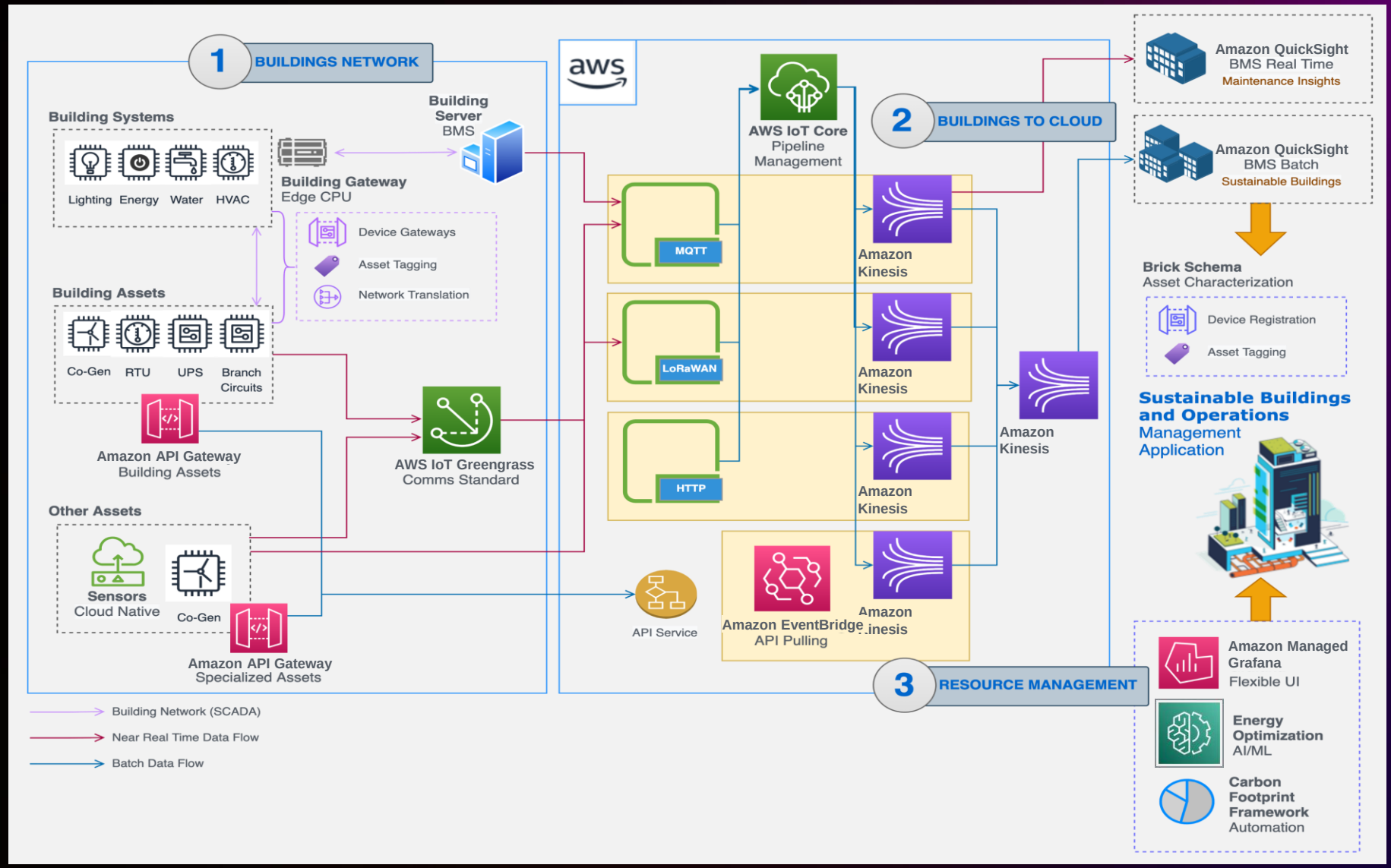
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Data acquisition

Flexible connection options for building infra and operations

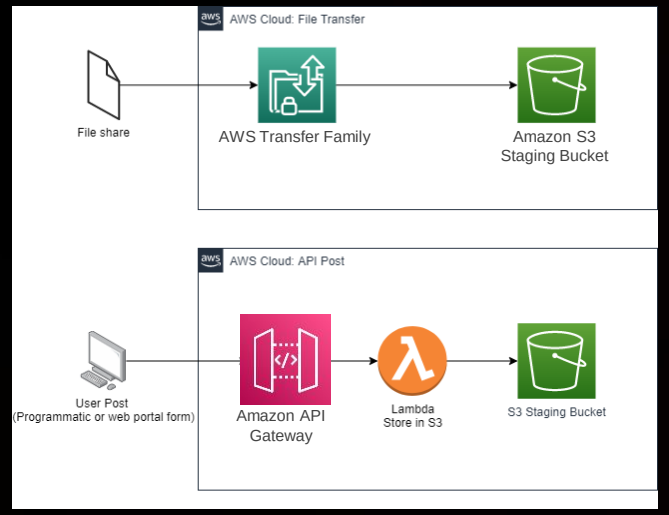
Repeatable method to add new assets to the cloud

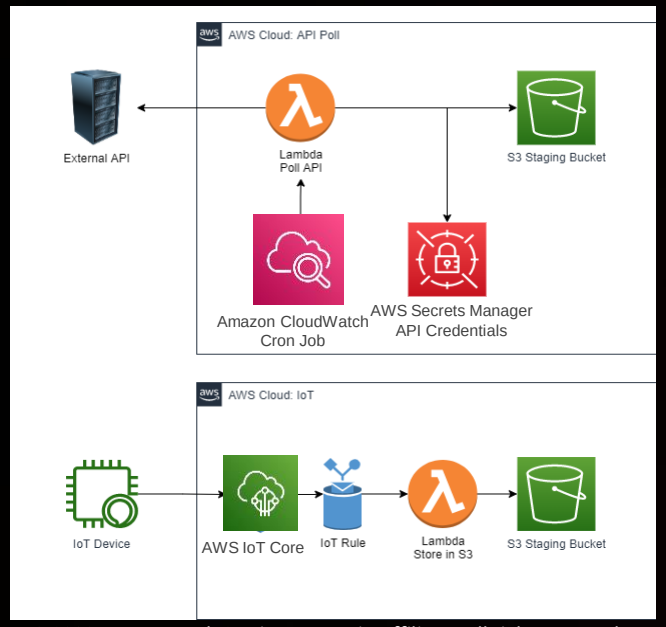
The first step in making sustainability initiatives data-driven

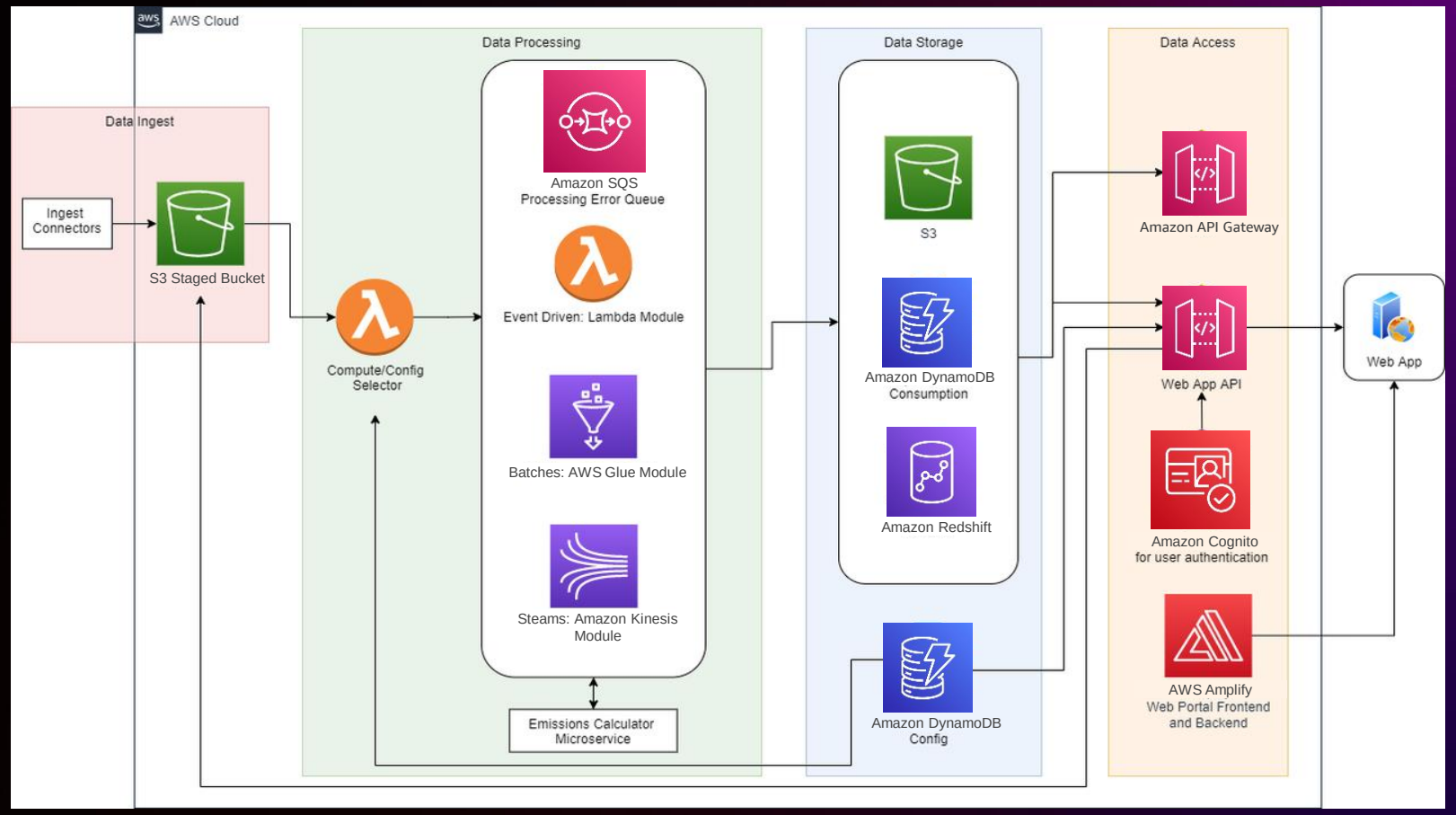


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Sustainability reporting







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Q&A

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Thank you!



Please complete the session survey in the **mobile app**

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