

A large, 3D, orange-outlined graphic of the text "5G 2020" is positioned in the upper left. The "5G" is significantly larger than the "2020". The background of the slide is a dark blue, high-tech image of a circuit board with glowing components and a grid pattern. On the far left, there is a vertical blue and white geometric pattern.

5G 2020



**UST Global
NaviSafe**

Sept 2020

Connected Worker - Introduction



The **Connected Worker** increases the Worker Safety and Productivity at Construction Sites or Manufacturing or Treatment plants by :

- 1) Capturing Near Misses
- 2) Increasing Supervision Fidelity
- 3) Reducing Unsafe Behavior

CWS uses Industry 4.0 technologies like IoT, Cloud and Analytics. It is a complete system with a Device, Communication infrastructure and the Cloud application.

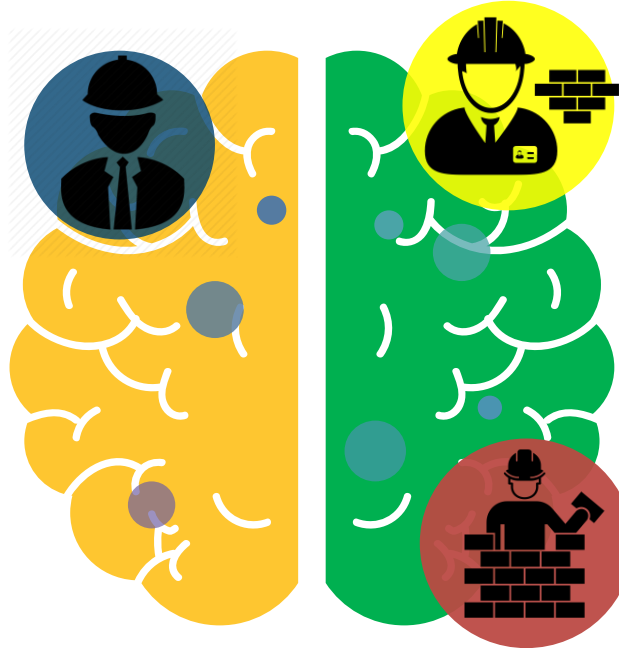
CWS also introduces a new paradigm for Safety Management. The use of Gamification to engage workers in Safety activities

UST offers connected worker as a service on a per worker per month pricing model

ENABLERS - DISABLERS

1. Management Support
2. Supervision
3. Communication / Language
4. Tight Schedule
5. Tools / PPE
6. Manpower
7. Training
8. Skillset
9. Rewards & Recognition
10. Background / Experience
11. Fatigue
12. Health Conditions
13. Salary
14. Weather Condition

CEO ROUNDTABLE



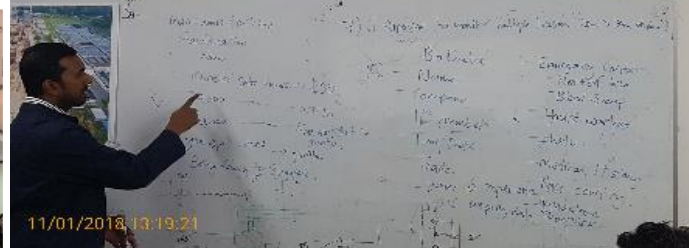
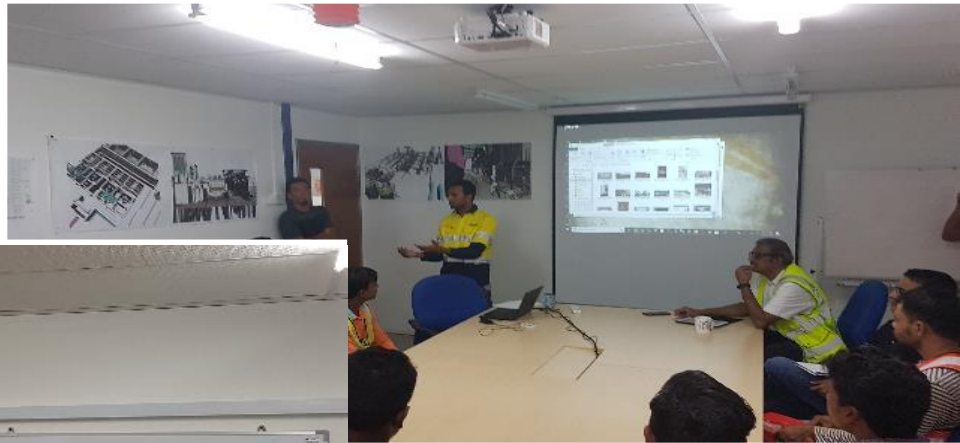
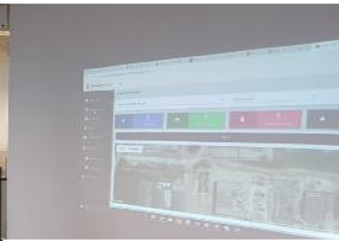
SUPERVISORS

1. Paper Work KPI
2. Walk aimlessly
3. Communication / Language
4. Tight Schedule
5. Short cut
6. Manpower shortage
7. Multi hatting

WORKER

1. Boss scold me
2. Long working hours
3. No training ask do work
4. Sudden role change
5. Short cut / Faster do work
6. Rest area far / Fatigue
7. No sense of value

INDUSTRIAL ENGAGEMENT AT ALL LEVELS



Target Facilities - Examples

**CONSTRUCTION &
MANUFACTURING PLANT**



AIRPORT



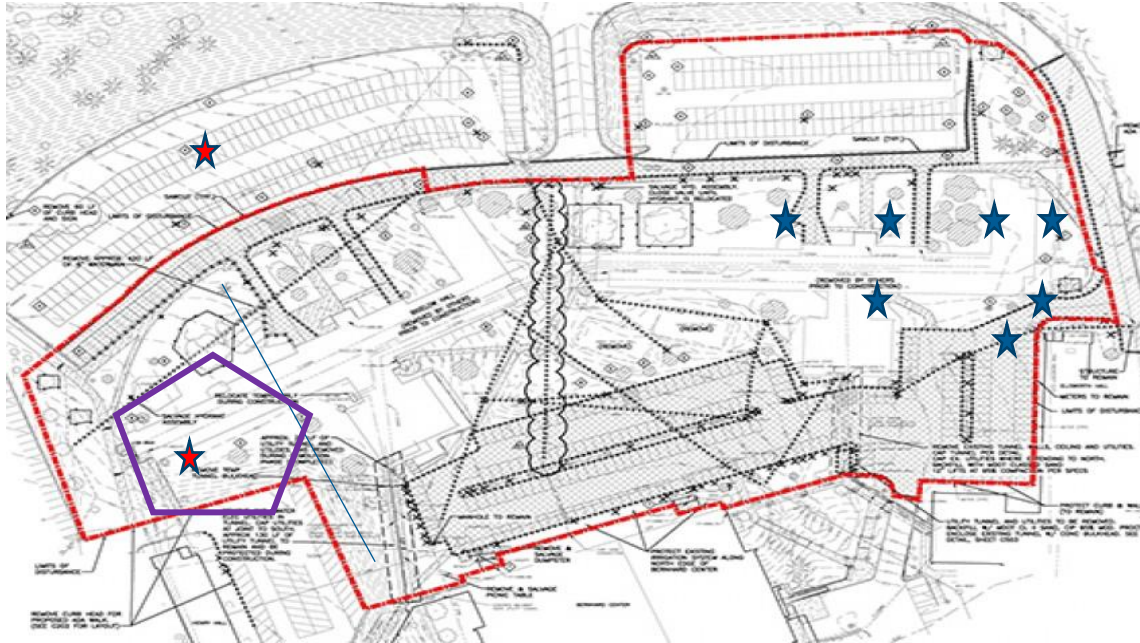
HOSPITAL





SHOPPING MALLS



USECASE 1 : Realtime Rostering and Supervision Fidelity



-  Worker in Authorized Zone
-  Worker in Unauthorized Zone

USECASE 2 : Fall Detection



2
Tom has fallen from a ladder and fainted



3
FALL DETECTED!
Site Office Alerted. They dispatch emergency personnel



3
Tom's Supervisor gets an instant SMS Alert. He rushes to the spot



4
Emergency response team provides first aid & brings him to hospital if required



USECASE 3 : Panic Alarm

① John works at a construction site



② He experienced a heart attack



③ He remembers and pressed the Panic Button



④ **Panic Button Pressed!**

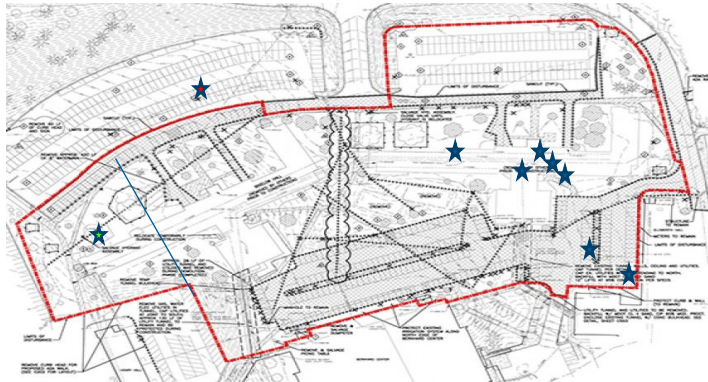
Site Office Alerted . They send
Emergency y Response Team



⑤ Emergency Response Team
provides first aid and resuscitates him



USECASE 4 : User Profiling – Geo Tracing

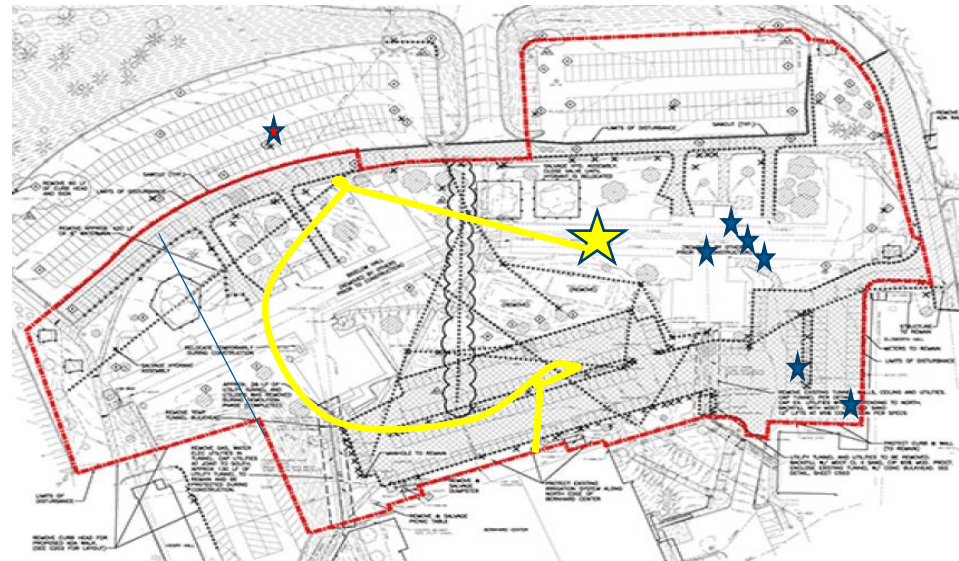


* Area with red tracing is the authorized area

- ★ Worker in Authorized Zone with Safety Gear
- ★ Worker in Unauthorized Zone

We have a productivity challenge with John . Let us analyze his day !

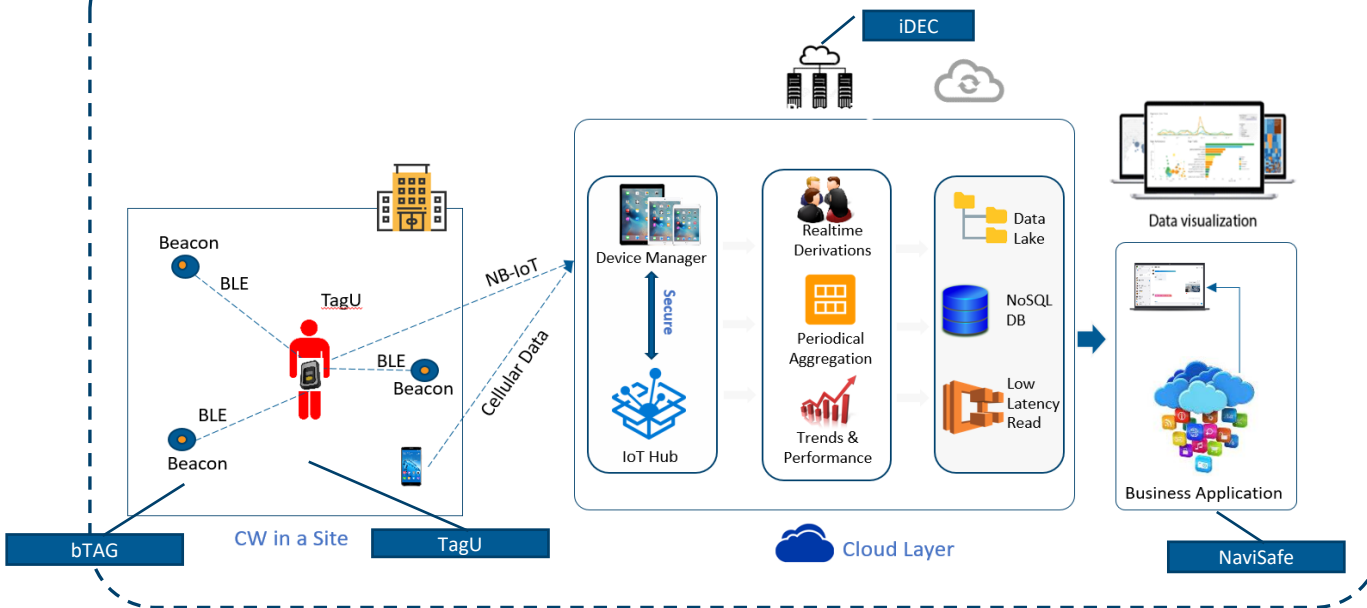
3rd Sept 2018 – 4.40 PM
Name : John
Unit : ZZZ
Supervisor : Steve



Solution Overview - High Level Architecture

Our proposed solution will be built on top of our Connected Worker System (CWS). CWS is a complete platform suite with TagU (Device) and NaviSafe (The Cloud Application) has been jointly developed and hardened over a period of 1.5 Years by **UST Global** and **Jacobs**.

Solution Components



Worker fatigue monitoring



Realtime position of worker



Maintain worker safety records



Filter and watch high risk workers



Integration to safety Apps



Dynamic Geofence for workers



Send evacuate message to workers



Worker activity, movement and productivity



Distress alert



Regulatory Reports with more Accurate data



Fall alert



TAG U – OUR DEVICE



Features



Realtime Position
Information of each
Worker



Ability to filter and watch
high risk workers &
activity



Dynamic Geofence to
protect the workers



Integration to Safety
Apps like ePTW



Maintain worker safety
records including
Training



Worker Fatigue
Monitoring



Distress Alert



Fall Alert



Send evacuate message
to workers directly



Worker Activity,
Movement and
Productivity Analysis



Regulatory Reports with
more accurate Data



Gamification of Safety
– A new Safety
Paradigm

Key Tenets



Significant reduction
in Unsafe behavior



Two way
safety alerts



Future proof
architecture



Hassle free
Reporting



Availability of Safety
Command Center



Higher Worker Engagement
in Safety through Gamification

Thank You

