

## Sensors



Semantic  
Encoder

Semantic  
embedding

## Target Environment



## Sensors



Semantic  
Encoder

Semantic  
embedding

Wireless link

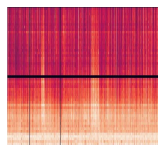
Conv. semantic  
communication

Conv. semantic  
communication

User side



RF  
sensing



Sem.  
Encoder

Sem.  
emb.



Data dropped  
due to  
communication errors



Semantic  
embedding

missing

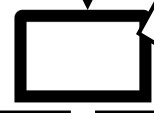
Semantic  
embedding

Semantic  
inpainting

Inpainted  
Sem. emb.

Inpainting in semantic  
space to capture the  
target environment  
comprehensively.

Inpainted  
Sem. emb.



Inpainted  
Sem. emb.

Semantic  
Decoder

