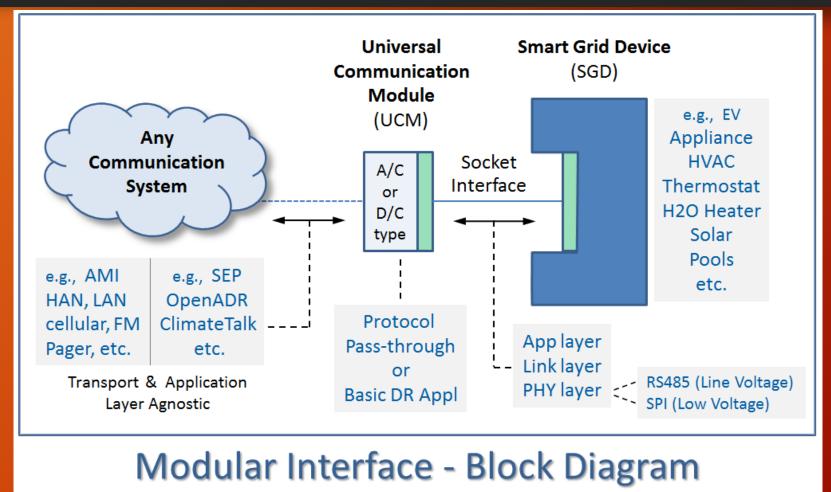
DOCKETED			
Docket Number:	20-FDAS-01		
Project Title:	Flexible Demand Appliance Standards		
TN #:	236117		
Document Title:	Presentation - Communications Standards for Flexible Demand Apploicances		
Description:	Presentation detailing the various methods on communication standards for flexible demand appliances By Walt Johnson IEEE SB 49 Lead Commissioner Workshop December 14 2020		
Filer:	Messay Betru		
Organization:	H. Walter Johnson, Ph.D.		
Submitter Role:	Public		
Submission Date:	12/22/2020 4:47:10 PM		
Docketed Date:	12/22/2020		

Communications Standards for Flexible Demand Appliances

Dr. Walt Johnson

Workshop on Senate Bill 49 Flexible Demand Appliance Standards
December 14, 2020

CTA-2045 Physical Port on the Appliance



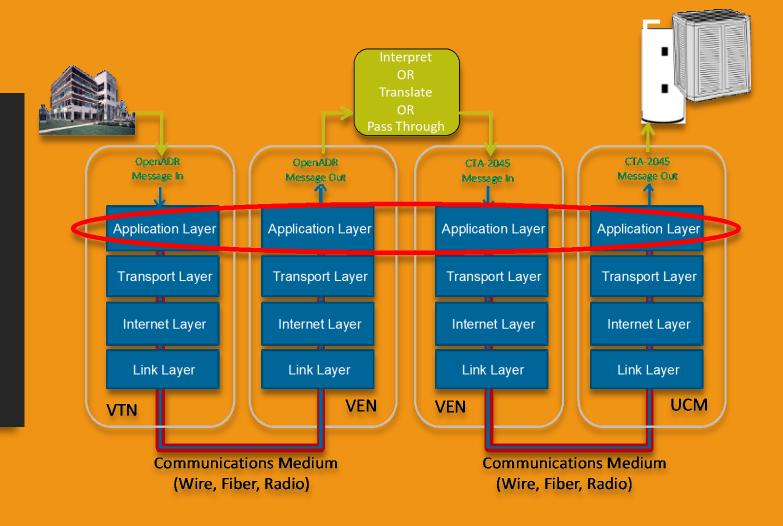
OpenADR to CTA-2045 Communication: <u>Architecture Overview</u>



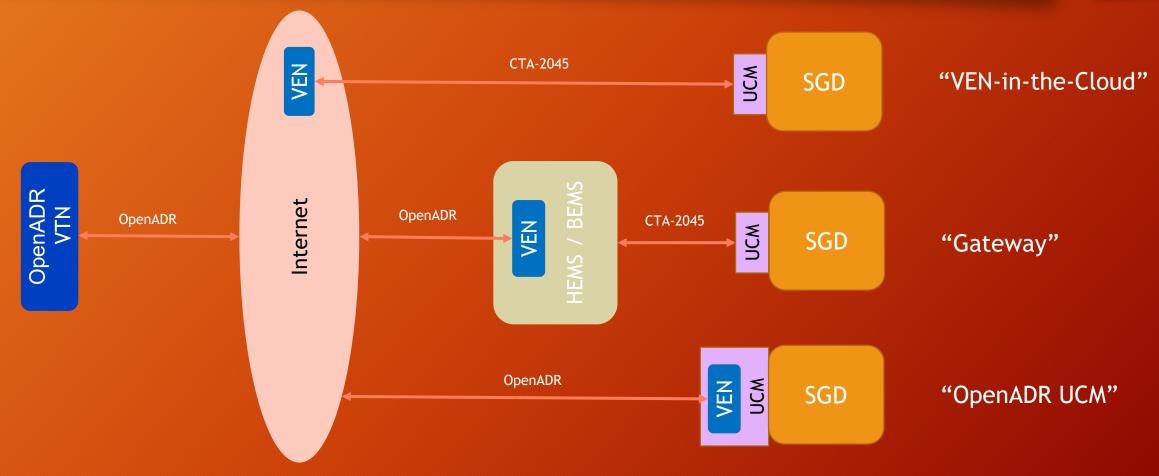
Mapping between OpenADR and CTA-2045 Signals

Program Message	Tier	OpenADR (Signal, Value)	CTA-2045
Load Up	1	Simple, 0	Load Up (LU)
Moderate	2	Simple, 1	Shed (S)
Critical Peak	3	Simple, 2	Critical peak Event (CPE)
Grid Emergency	4	Simple, 3	Grid Emergency (GE)
Time of Use	Up to Four	Simple, 0-3	LU, S, CPE, or GE
Real-time Price	N/A	PriceMultiplier, Variable	Relative Price

Network Layering and Message Mapping



Some OpenADR/CTA-2045 Deployment Architectures



Thank You!

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