



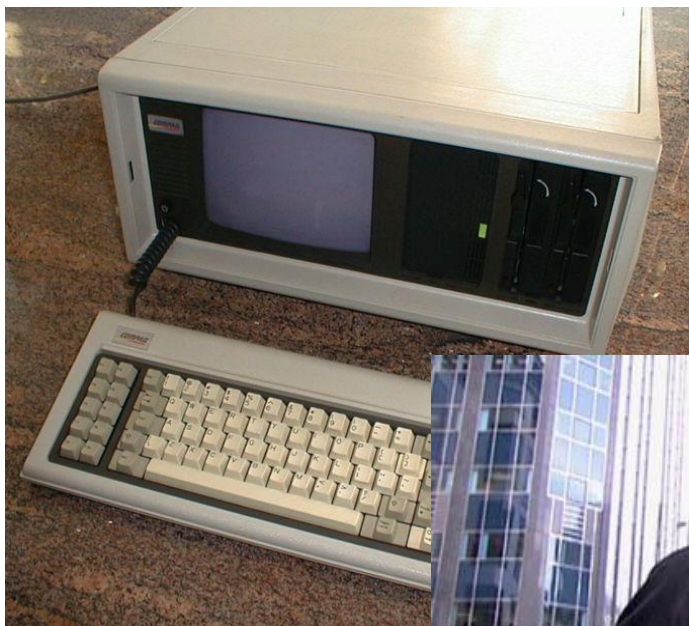
A lower cost concept for HOT and other Toll Lanes

Bob Lees

Federal Signal Technologies/Idris



Once upon a time



.... these were “state of the art”



.... and then



Fashions changed and technology advanced



.... and now



.... *these* are “state of the art”





.... and some



.... are based on “open” technology



So how does this relate to tolling?

.... the equivalent might go
like this



You could say in roadside
technology terms that



.... tolling implementation sits
somewhere between



.... after all



this is what we have now
at the roadside if no facilities exist



.... and we are trying to install here





Wouldn't it be great if the roadside made the jump to this



closed technology

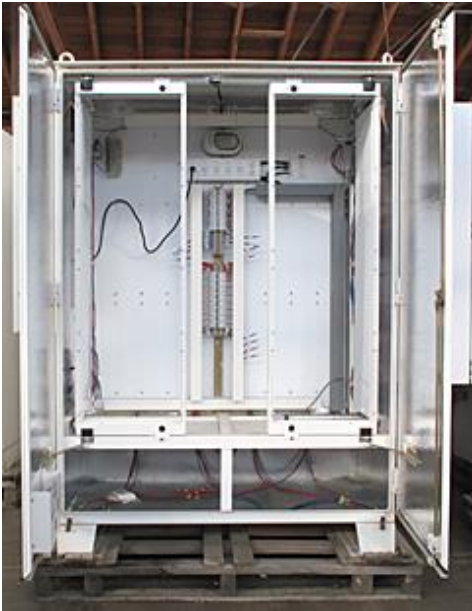
or even better this



open technology



.... so what if



Large Nema enclosure
Requires AirCon, Fans etc

could
become



Small Nema enclosure
No AirCon, Fans etc



The state of the art at roadside is

IP67 weather rated

-40 to +70 degrees C temperature range

Intelligent devices running a full OS



Reader does all the tag handling



Camera includes ANPR engine
Delivers OCR result



Complete AVC engine
Delivers complete vehicle information
including Tag to vehicle correlation

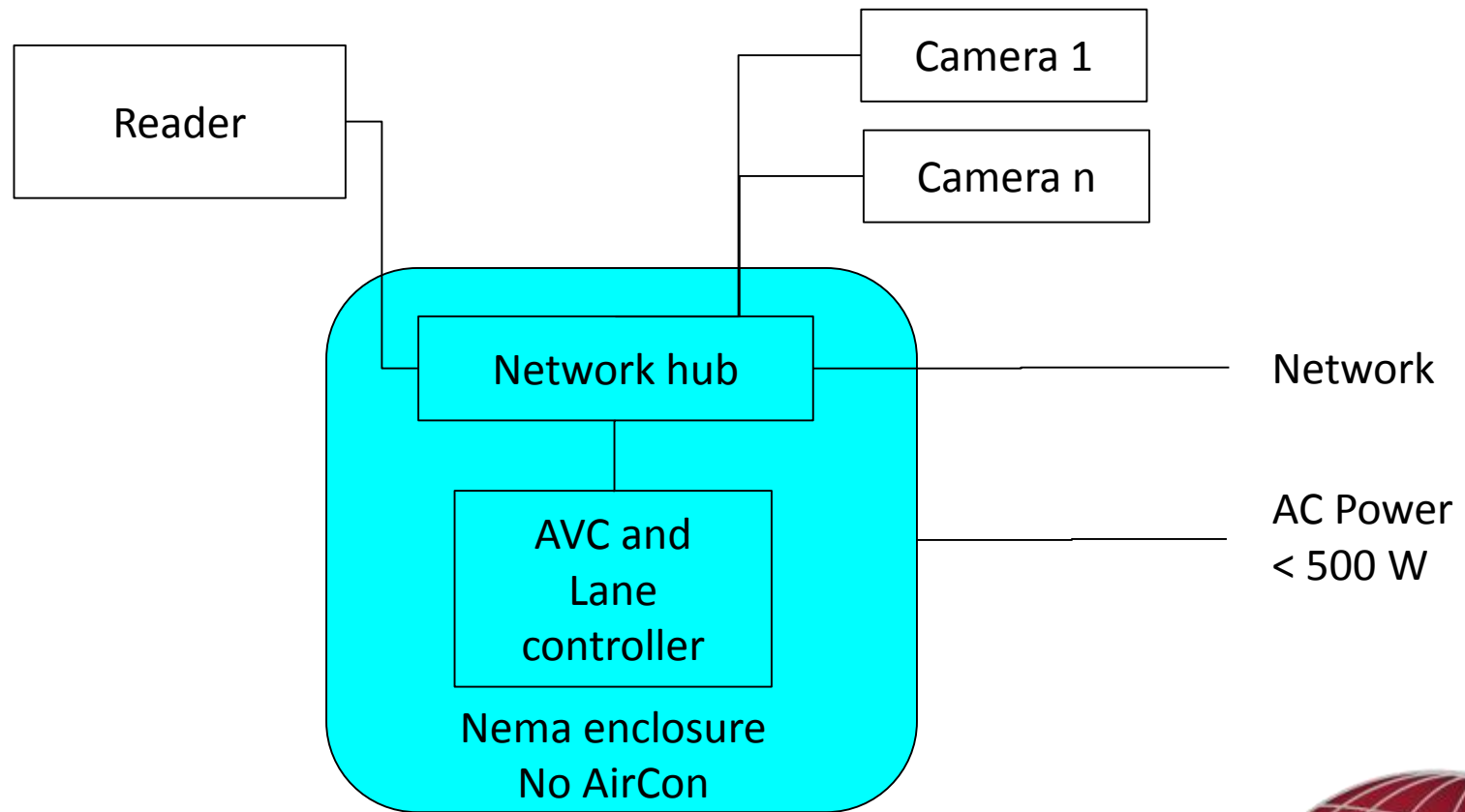


Rationale

- Lane side devices already doing heavy lifting
- Lane side devices run Linux
- Lane controller applications run on Linux
- **Ergo:**
 - **Lane controller applications can run on lane side devices**



One possible implementation



Result

- No air conditioning, fans etc
- Much lower power consumption
- Easier install
- Lower maintenance, no moving parts
- Complete roadside including Lane application is a Product



.... so the roadside installation might look like this



including lane controller application





Conclusion

There is a new state of the industry in tolling

- It's a new state of the industry in tolling
- ... and it exists now
- Technology platforms
- Can be maintained if desired
- Services are available which support this





The tolling equivalent of this is possible after all



Thank you for your attention

