

OPC UA Working Group

Roadmap

Jim Luth

Software Architect, Foxboro Evo R&D

OPC Foundation UA Working Group Chairman & TAC Member

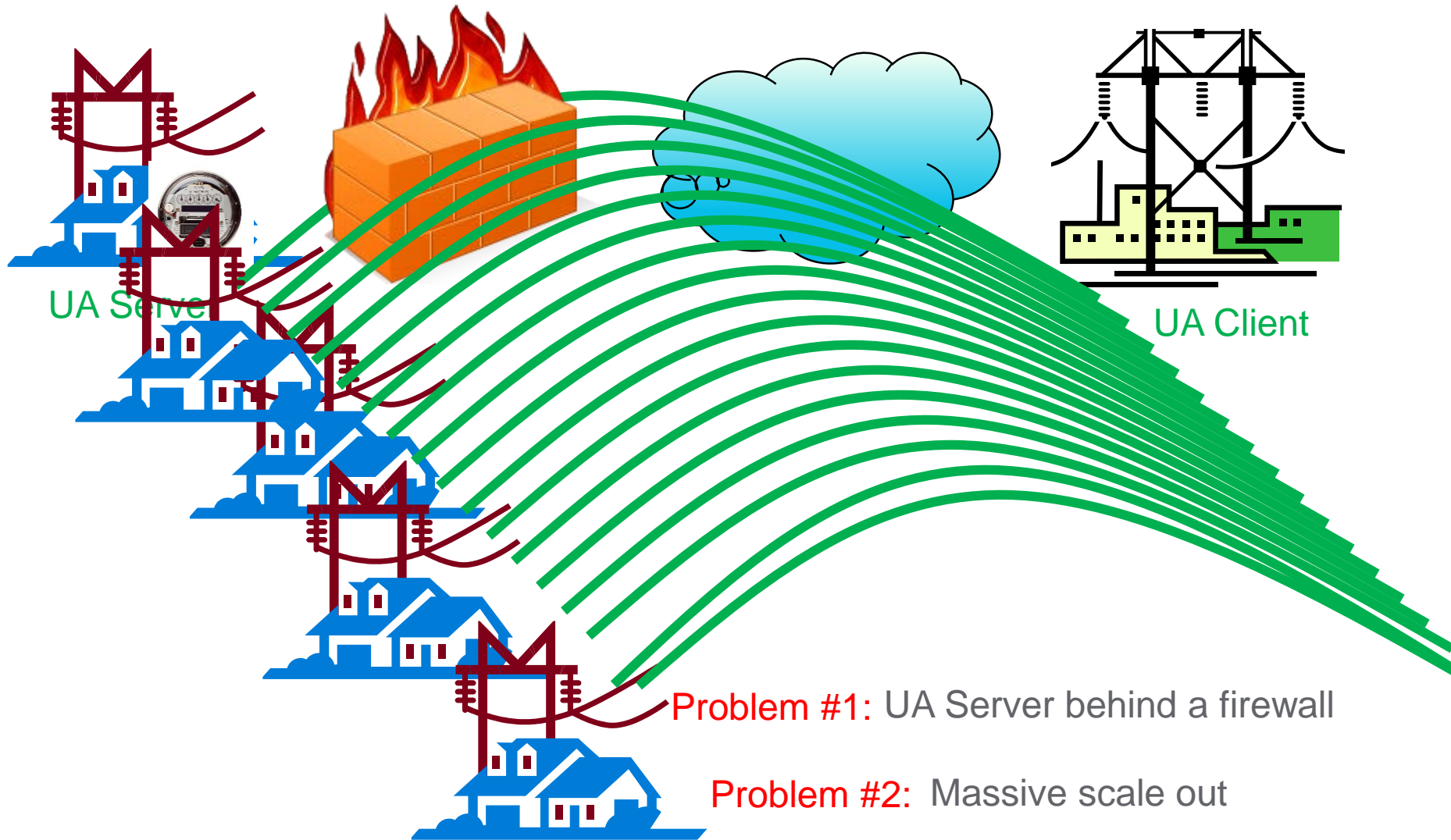


Avantis. Foxboro. SimSci. Triconex. Wonderware.

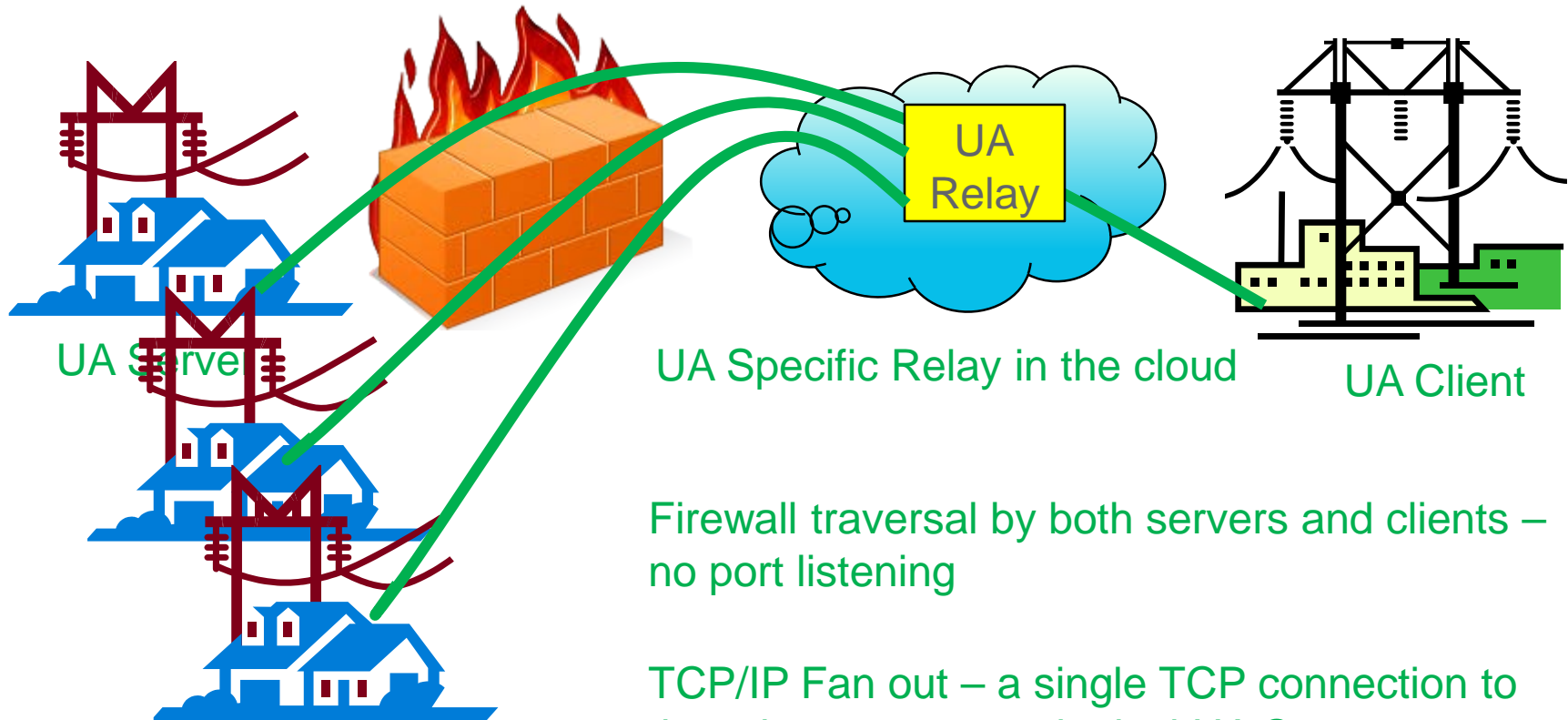
IT LOOKS LIKE UA IS FINISHED

What can we do to make it even better?

Smart Grid (Meter) use case



UA Relay Solution



UA Server

UA Specific Relay in the cloud

UA Client

Firewall traversal by both servers and clients – no port listening

TCP/IP Fan out – a single TCP connection to the relay supports n logical UA Secure Channels and Sessions

GOAL: All middleware – no changes to Clients or Servers

Scale out and firewall issue are universal

- Enterprise wide discrete and continuous process automation
- Worldwide building control and monitoring
- Distributed power generation
- Roving oil well drilling
-

Enterprise Service Bus Use Case

- ESBs are used by Enterprise IT (and now the cloud) to convey, transform and reliably deliver messages in a robust and location independent way.
- ESBs often use the Pub/Sub (Publication/Subscription) paradigm
 - A Publisher offers updates on groups of information called TOPICS
 - Subscribers request updates on TOPICS of interest without knowing the specific location of the Publisher(s)
- **PROBLEM:** UA Client controlled subscription model is does not flange up and convert to the ESB Pub/Sub model

Enterprise Service Bus Solution

- Add Server define subscriptions (aka Public Groups) – the equivalent of ESB Publication TOPICS
- Build reference implementation of connectors to ESB utilizing other standards e.g. AMQP (*Advanced Message Queuing Protocol*)
- Add a multicast capable transport for efficient local communication (e.g. UDP [User Datagram Protocol])

UA Working Group Logistics

- Open to all OPC Foundation Members
- Web meetings every Tuesday 11 AM – 1 PM Eastern Time
- 3 or 4 Face-To-Face Meetings per year (typically 3 or 4 days each)
- 10 – 20 active participants

- Please consider joining:
 - <https://opcfoundation.org/about/working-groups/>

