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REGIONAL SEMINARS 2013

The Power of Data
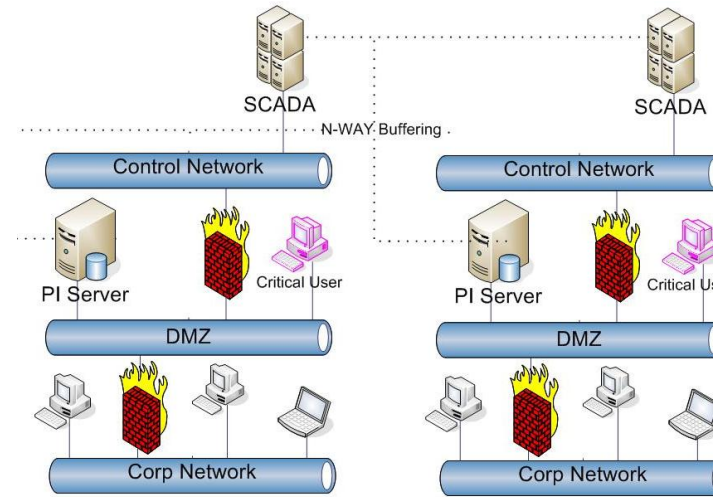
Evolution of PI System Access

Presented by **Abdo Y. Saad**

conEdison

Evolution of PI System Access

Foolproof systems don't take into account the ingenuity of fools.

Gene Brown

conEdison

SCADA   SCADA
N-WAY Buffering
Control Network   Control Network
PI Server Critical User   PI Server Critical U:
DMZ   DMZ
Corp Network   Corp Network

- Secure access
- Regulatory Compliance
- Small footprint

- Protected networks
- Clear rules and processes
- Achieve more with less

- Segregate networks
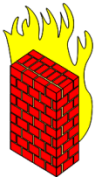- Separate Merchant group
- Optimize No. of servers

3

Agenda

- *What I mean by…*

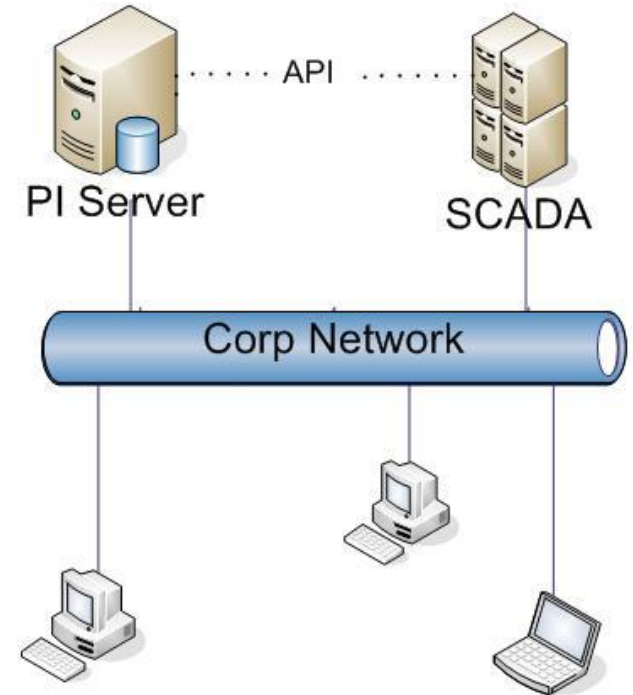- *Various PI Server configurations*

- *Questions*

What I mean by…

- *Corporate network*

- *Control network*

- *SCADA*

- *Dotted line*
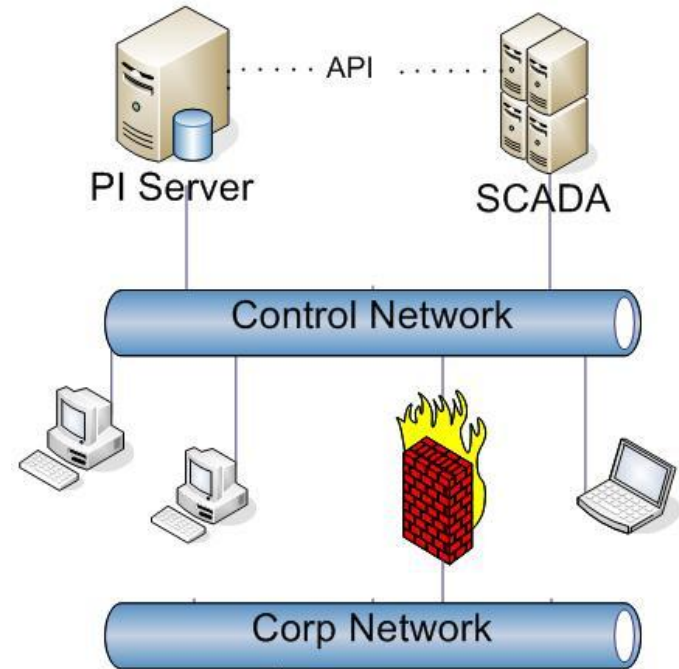
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Access to PI Servers

At the beginning

- *Control network and corporate network all the same*

- *Not much concern about security*

- *No regulatory compliance*

Access to PI Servers

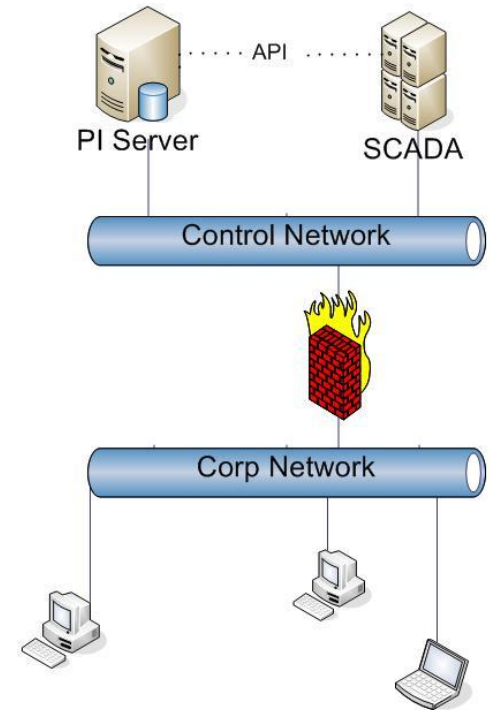**Separation of Control network**

- *PI Servers remained on Control network*

- *Users still on Control network*

- *Archived data not available to corporate users*

Access to PI Servers

Providing PI data outside control centers

- *PI Servers remained on Control network*

- *PI access opened up to corporate users*

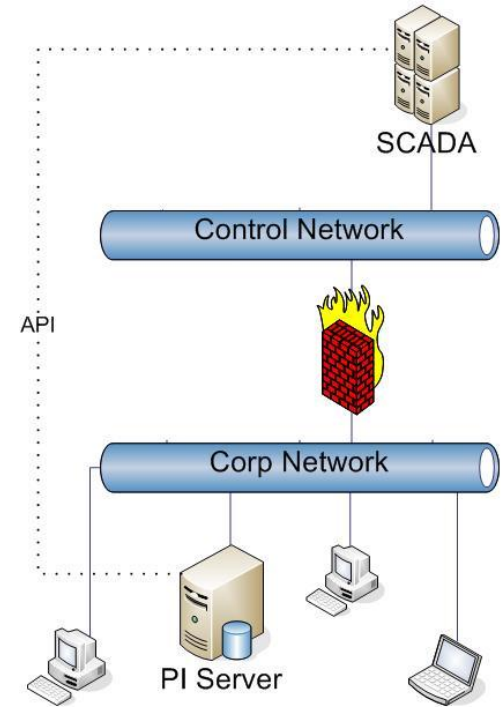- *Archived data made available for corporate groups*

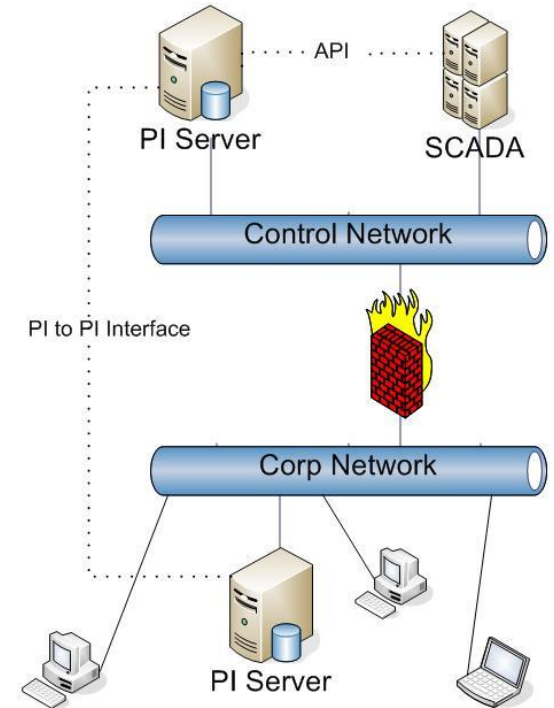# Access to PI Servers

Concern about access to Control network

- *PI server moved outside secure perimeter*

- *Change transparent to users*
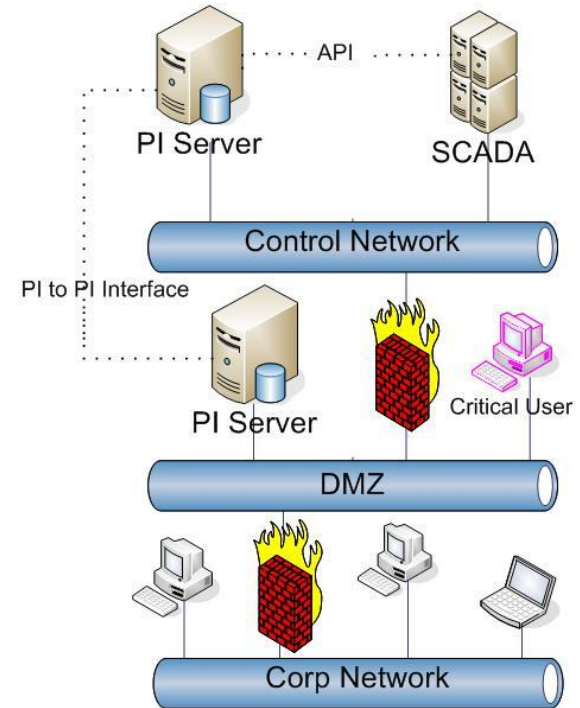
Access to PI Servers

CIP happens

- *PI server inside secure perimeter*

- *PI server outside secure perimeter*

- *User access from Corporate network only (avoid tracking user eligibility to access critical system)*

- *Helps regarding concern about buffering of data*

Access to PI Servers
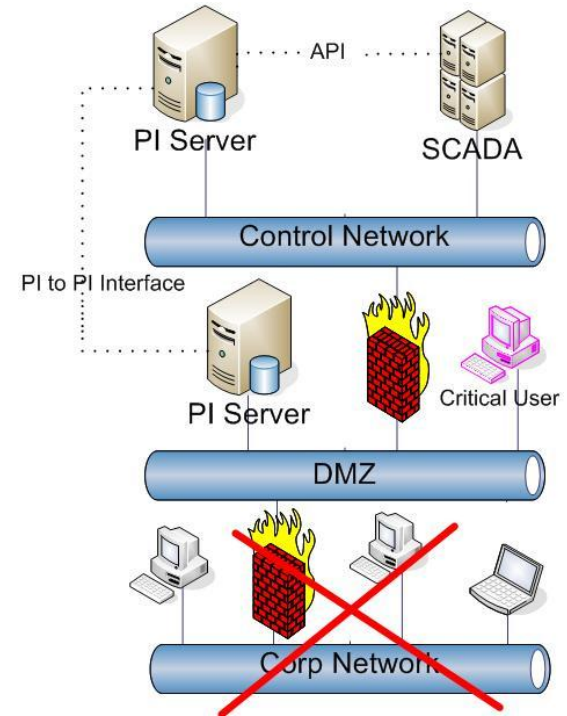
Concern about network separation

- *PI server on DMZ*

- *PI access still available if corporate is separated*

- *Critical users given access through DMZ access point (firewall)*

Access to PI Servers
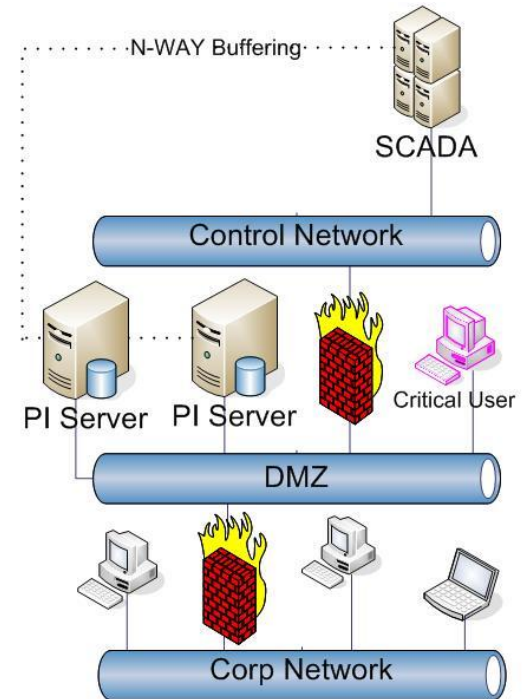
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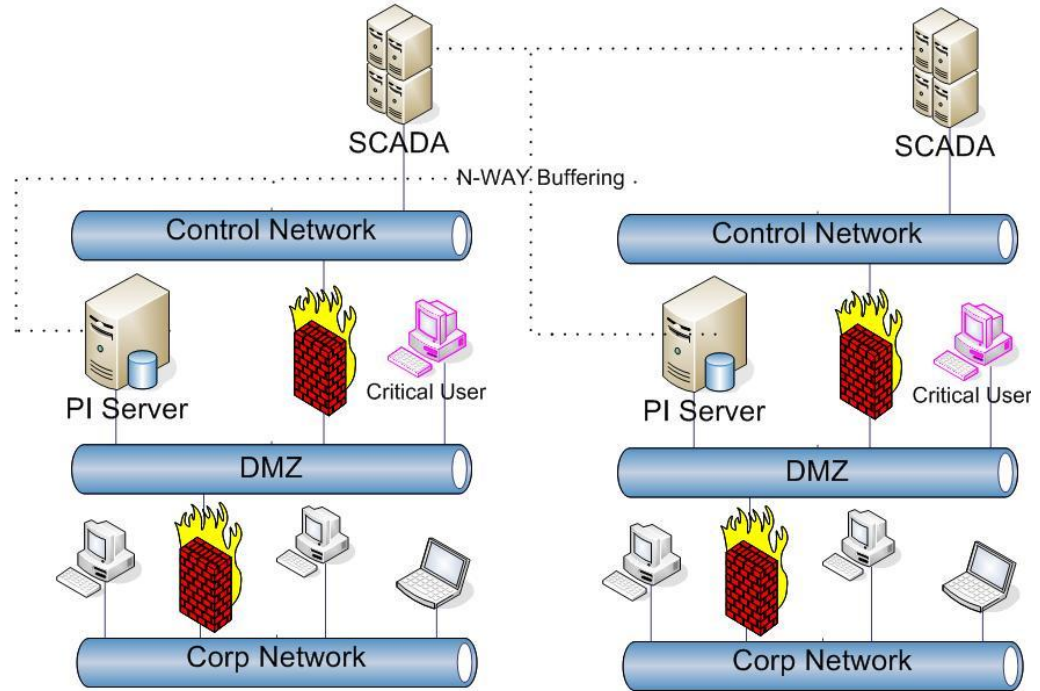
Access to PI Servers

Redundancy & smaller footprint

- *Redundancy on Corporate network*

- *Data identical on both servers (N-Way Buffering)*

- *Access to corporate users through DMZ*

- *Less Maintenance*

Access to PI Servers

Full picture

THANK YOU

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