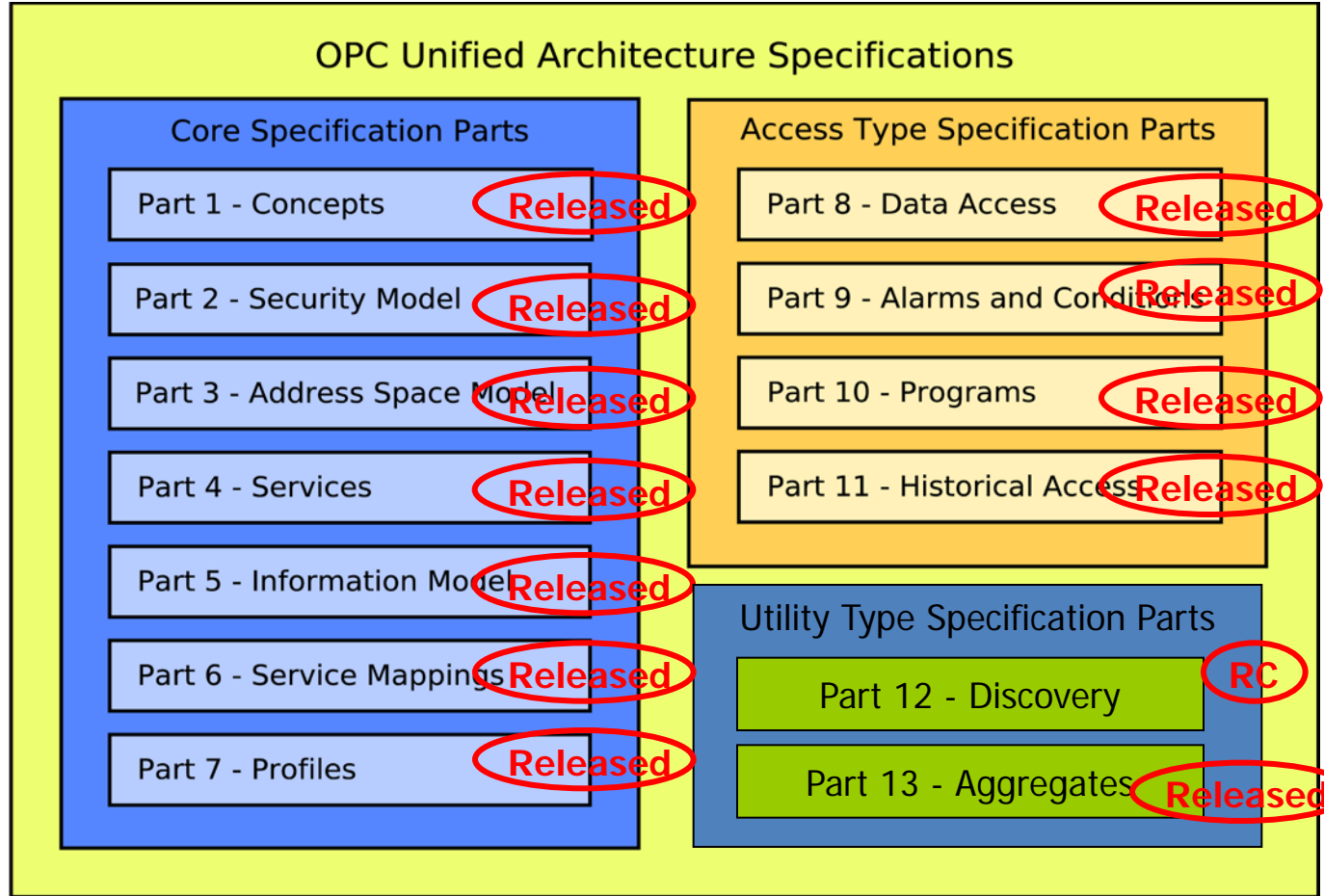


Summary

OPC UA - Secure & Reliable Communication of Information



Status OPC UA Specifications



**Companion specifications available e.g. DI, ADI, ISA-95
PLCopen, Available as IEC 62541,**

- Small footprint (can run in embedded devices)
- High speed
 - Faster than OPC Classic
 - Primary limitations are in accessing back end systems

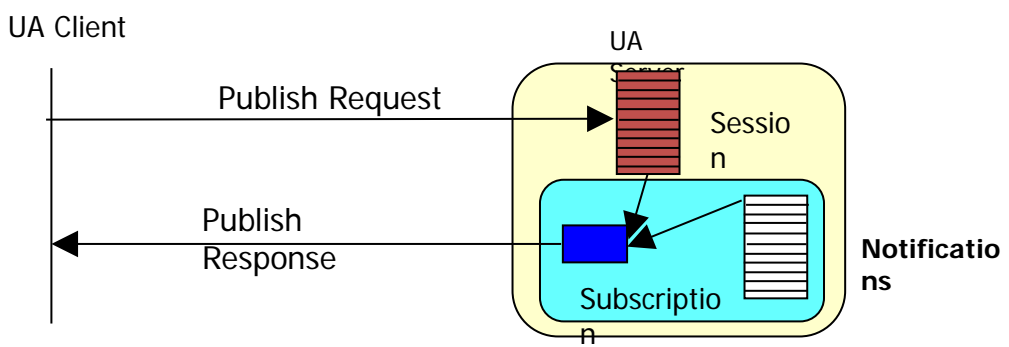


Controllers



Embedded Systems

- Efficient Transport
 - Exception reporting



OPC UA Products Embedded

- PLC & DCS**
 - PLC & DCS integrated OPC UA servers available
- IEC 61131-3 vendors**
 - Integration into runtime IEC 61131-3 runtime systems
- Embedded HMI**
 - Windows CE based HMI vendors implementing OPC UA clients
- OPC Unified Architecture on a chip !**
 - Opportunities to expand into other domains, such as security and building automation
- Communication Gateway**
 - Wireless sensor gateways with OPC UA server
 - Field bus gateways with OPC UA server
- Building Automation**
 - Partnership with BACnet to expose BACnet objects (data and all the meta data !)



Device OPC Server

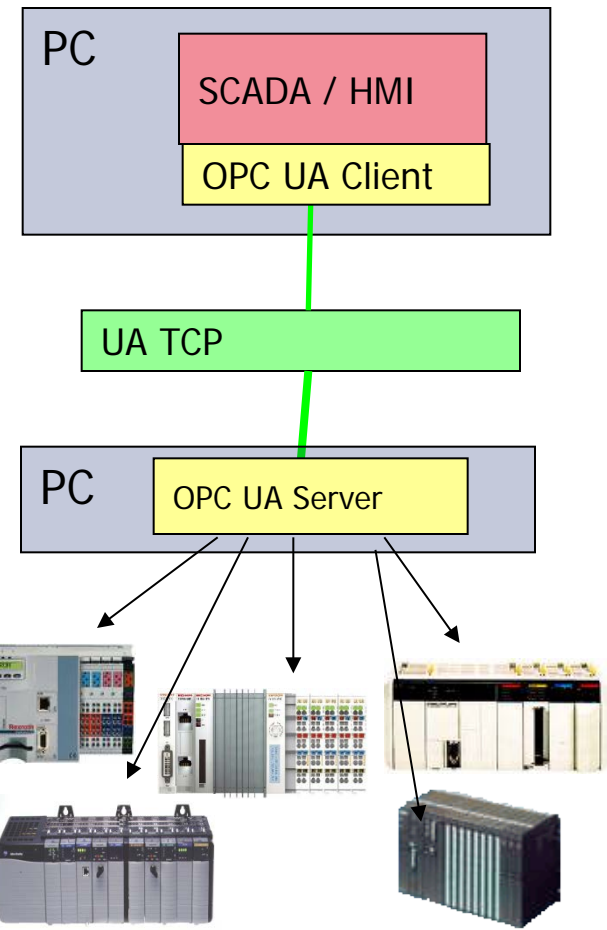
- Existing OPC Server migration to OPC UA
- Many vendors, such as Kepware, Matrikon and Siemens, provide UA interfaces for their PC based OPC device server suites

LINUX / UNIX

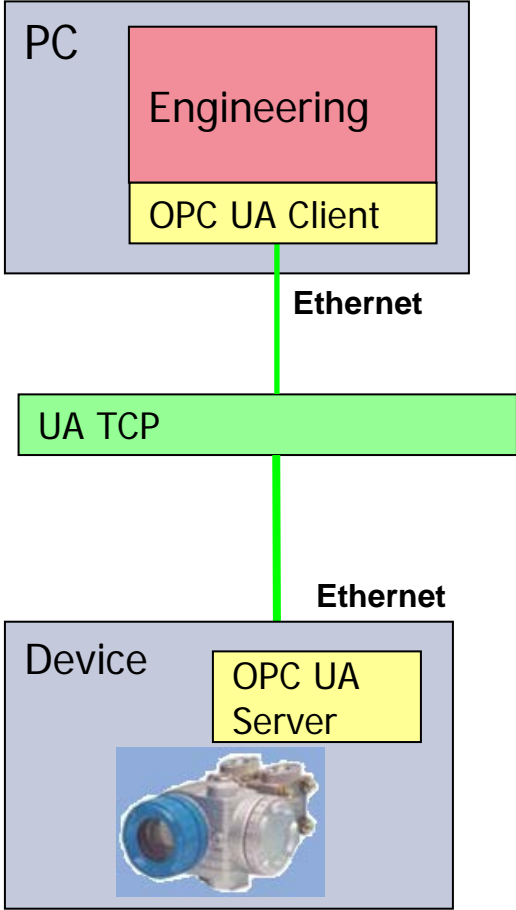
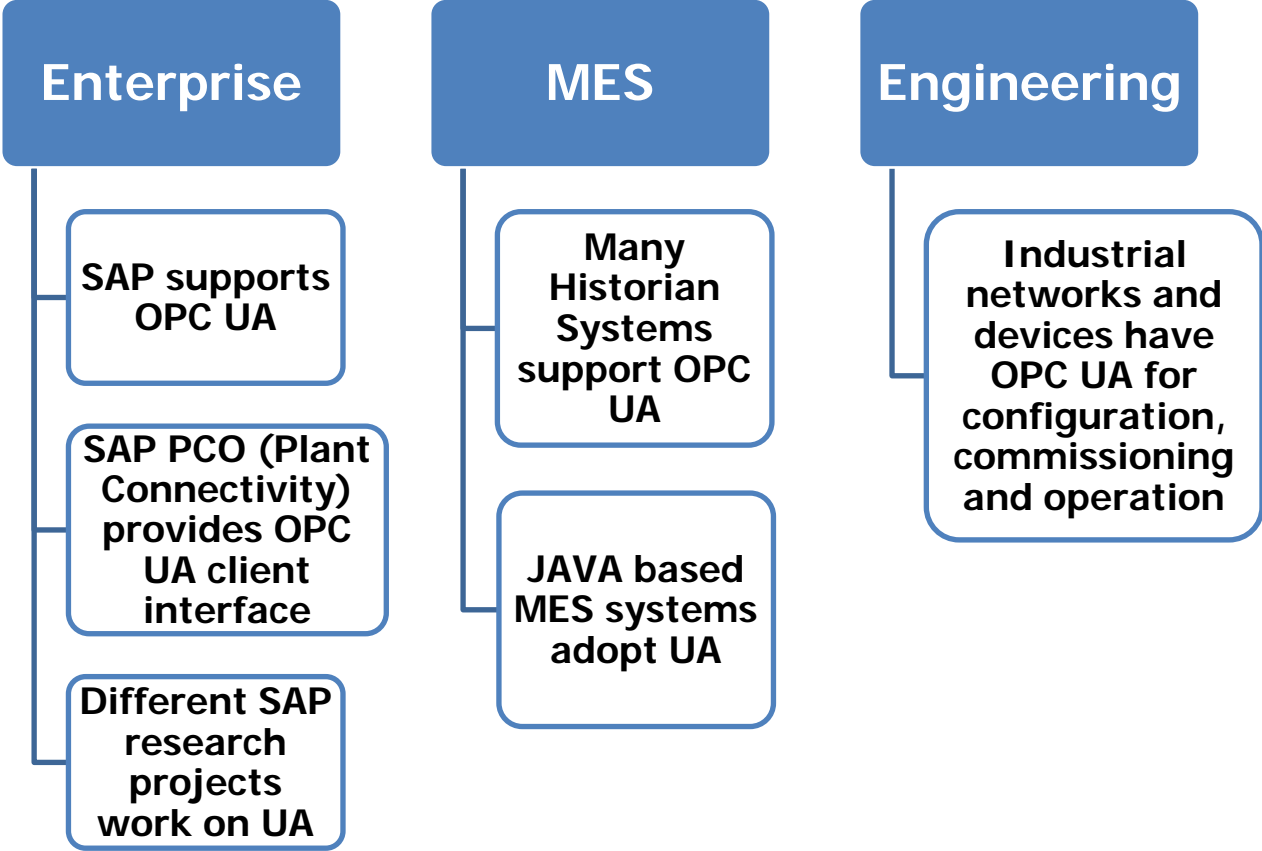
- LINUX and UNIX based automation systems are integrating OPC UA
- Replaces external OPC interfaces on Windows based systems

SCADA

- OPC UA server and client
- Numerous SCADA systems have integrated UA
- JAVA based SCADA systems adopt UA



OPC UA Products MES and Enterprise




Certified Products

Listed at www.opcfoundation.org

The screenshot shows the OPC Foundation website interface. At the top, it says "The Interoperability Standard for Industrial Automation & Related Domains™". Below this is a navigation menu with items like "About OPC", "News", "Events", "Downloads", "Product Guide", "Support", "Regions", "Resources", "Search", and "My Account". The "Product Guide" menu is expanded, showing sub-items like "Product Certification", "Lab Certified Products", "Unified Architecture Products", "Product Search", "Product Vendor List", and "Embedded UA Development".

The main content area is titled "OPC Foundation Lab Certified Products". It includes a list of products with columns for "Company", "Certified Product Information", and "Certification, Defined".

Company	Certified Product Information	Certification, Defined
Apriso Website: www.apriso.com	FlexNet Category: DA Client Version: 9.6 Build 352835	<p>The products listed on this page exceed the highest standards set by the OPC Foundation and Compliant Working Group.</p>  <p>The following characteristics were tested and verified by an OPC Test Lab:</p> <ul style="list-style-type: none"> Compliance, and adherence to OPC Specifications. Interoperability, with other OPC Servers/Clients. Robustness, passed error injection tests and all attempts to fail or crash the software. Performance tested to ensure software meets or exceeds claimed performance statistics. Best Practices have been followed for both software development and OPC usage.
	FlexNet Category: DA Client Version: 9.4.2	
Bachmann electronic GmbH Website: www.bachmann.info	OPC Enterprise Server Category: DA Server Version: 2.11.99	
Beckhoff Automation GmbH Website: http://www.beckhoff.com	TwinCAT OPC UA Server Category: UA Server: (profiles shown below) - Standard UA Server Version: 1.6.0.73	
Canary Labs, Inc. Website: www.canarylabs.com	Trend Historian - HDA Server & DA Client Category: HDA Server, DA Client Version: 7.0.4.08058	
	Trend Link ActiveX Control Category: HDA Client Version: 7.0.4.08058	

Certified Products

Vendors with Certified Products



Conclusion

- Increased cyber-security
- High performance / Robust Communication
- Available on a variety of systems and devices
- Information models:
 - Allow data to be structured to fit your needs
 - Allow the flow of Information not just data



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Thank-You

OPC UA – the Standard for the Future