

CICS SOAP Technology Preview

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Feb 2003

Agenda

- **Why?**
- Overview of function - inbound
- Overview of function – outbound
- Tools
- Summary

Why XML/SOAP in CICS?

- **Maximise re-use of enterprise assets via standard interfaces**
 - Neutral approach, works for COBOL applications as well as Java
 - Synergistic with WebSphere and industry direction for Web Services
- **Customer requirements**
 - 50 + customers already implemented XML partially; requirements from many more
- **The industry will do it anyway**
 - At least 7 ISV solutions available with CICS now

Key Customer Pains

- Building homegrown parser to run under CICS
- Implementing header processing for homegrown XML exchange protocols
- Achieving high performance and scalability (including workload management)
- 32K COMMAREA limits
- Eliminating unnecessary middle tiers and gateways
- Developing new skills: XML, Java etc.
- Developing tools to generate adapters, emit WSDL, etc.

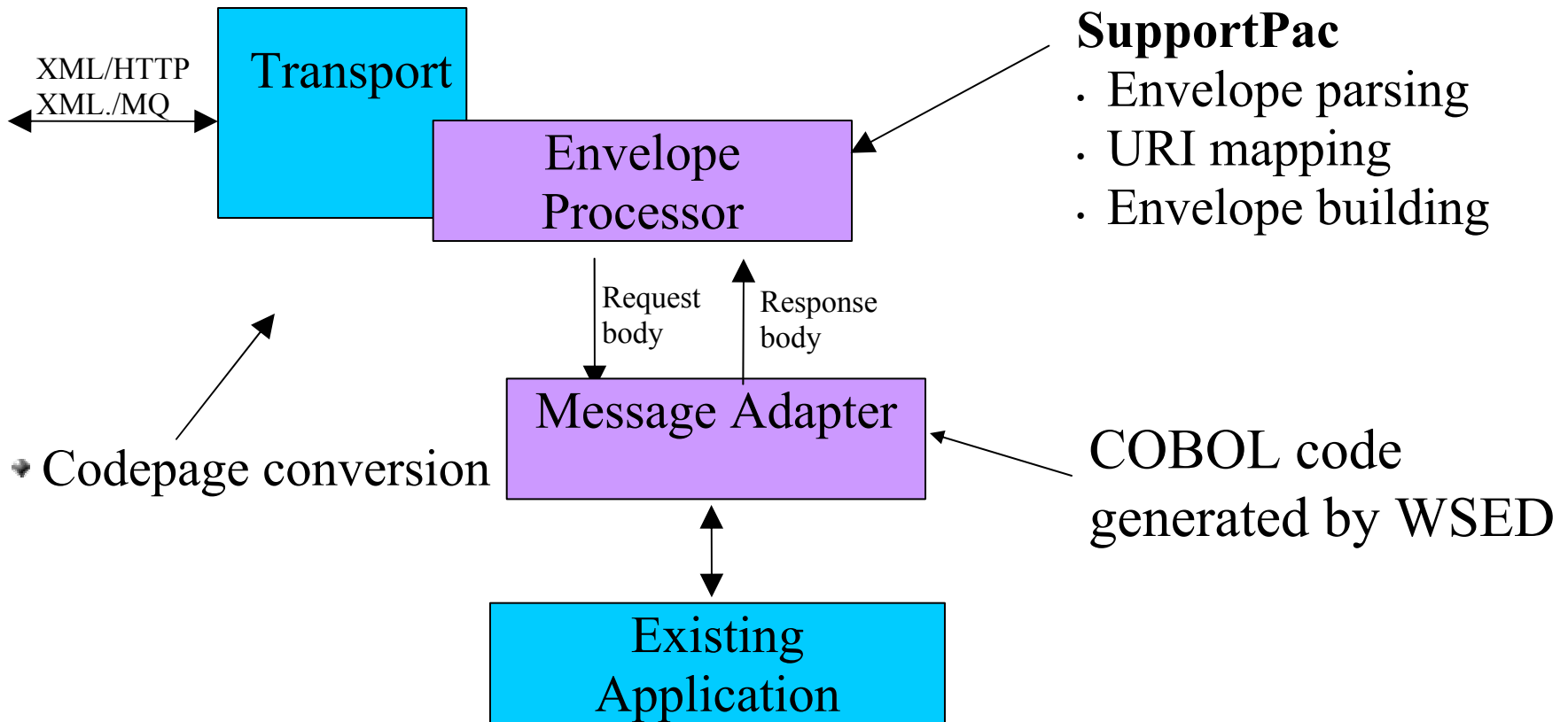
SOAP Technology Preview

- SOAP Technology Preview for CICS provides an implementation which runs in a CICS AOR
 - HTTP or MQSeries transport
 - Inbound and outbound
 - Implemented in C and COBOL or PL/I
- Demonstrated at Transaction & Messaging Conference, Las Vegas Feb 10-14, 2003
 - expect initial availability to customers 1Q03
 - no charge
 - not formally supported
 - will be delivered as a SupportPac

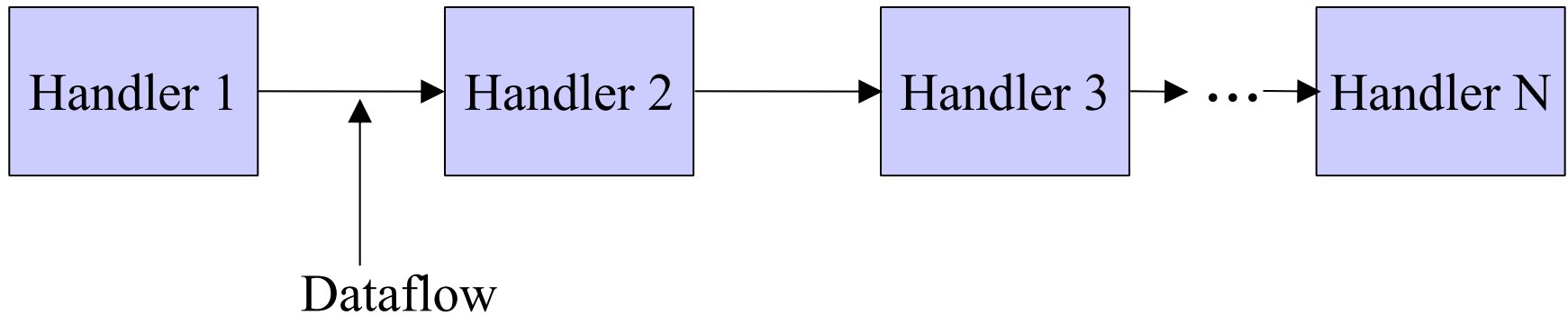
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Function Overview: Inbound

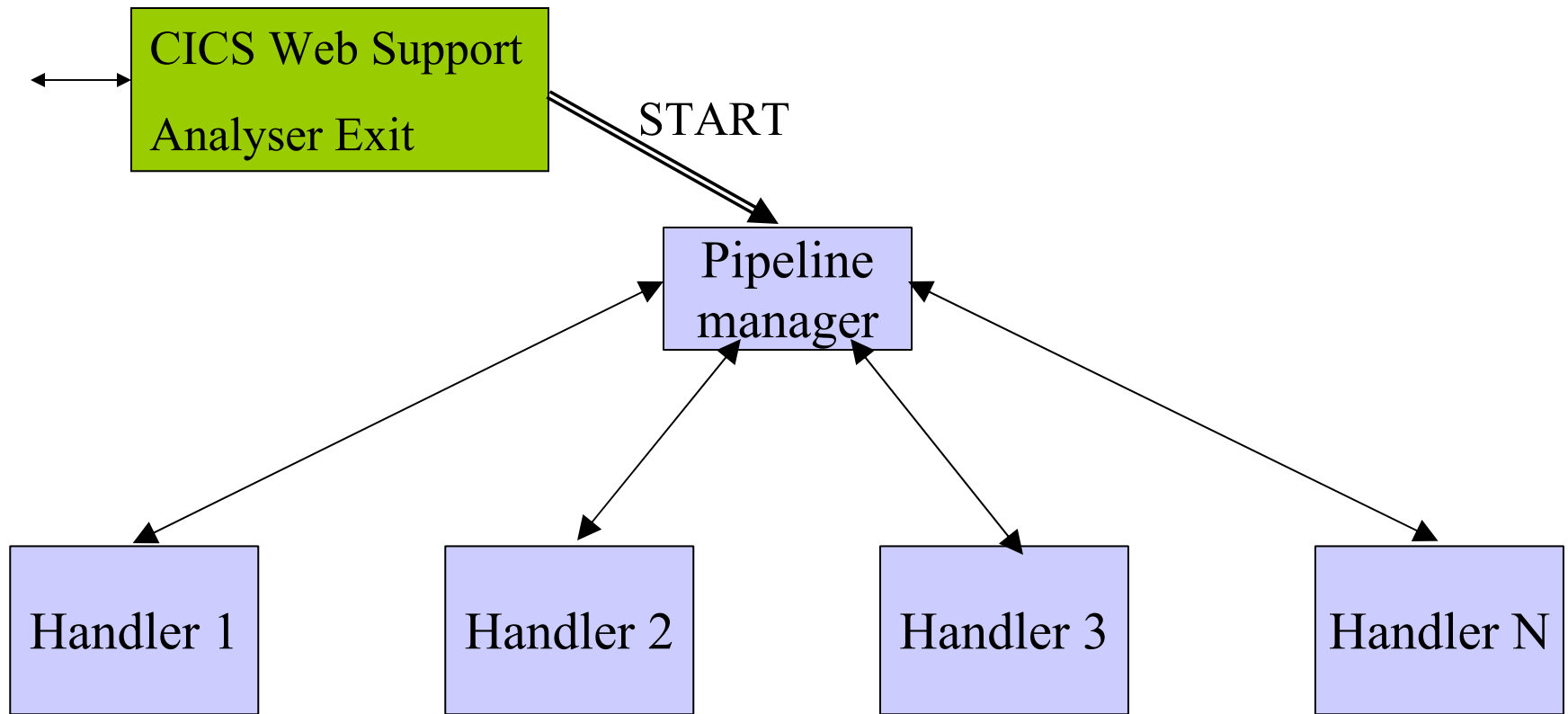


Pipeline Architecture for Envelope Processor



- Pipeline of handlers
- Analogous to Apache Axis architecture
- Separate handlers for processing transport, envelope, SOAP headers, etc

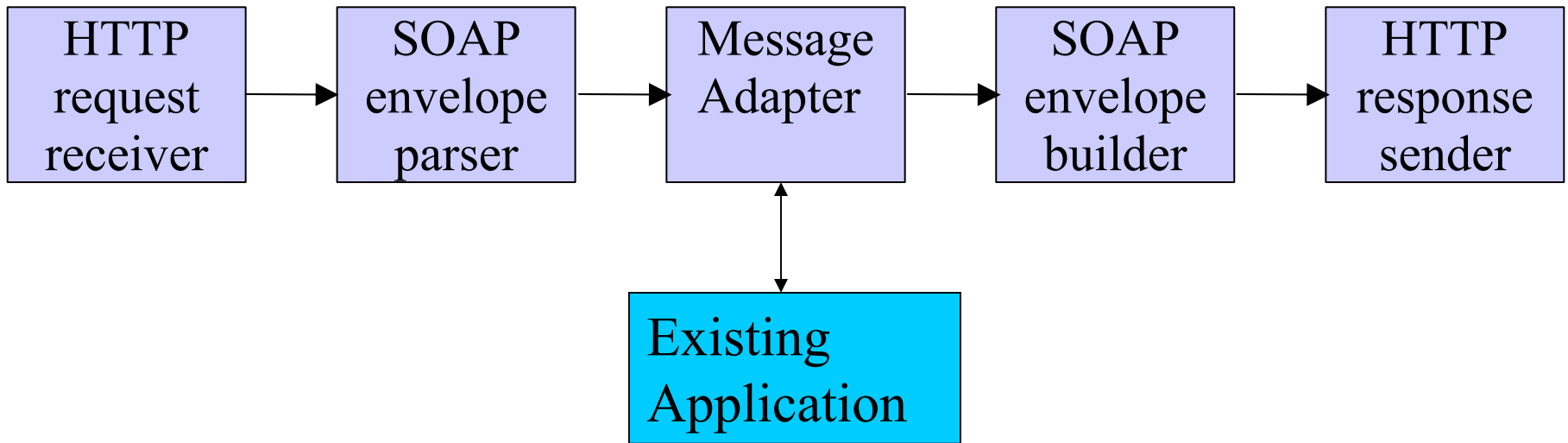
Pipeline Control Flow



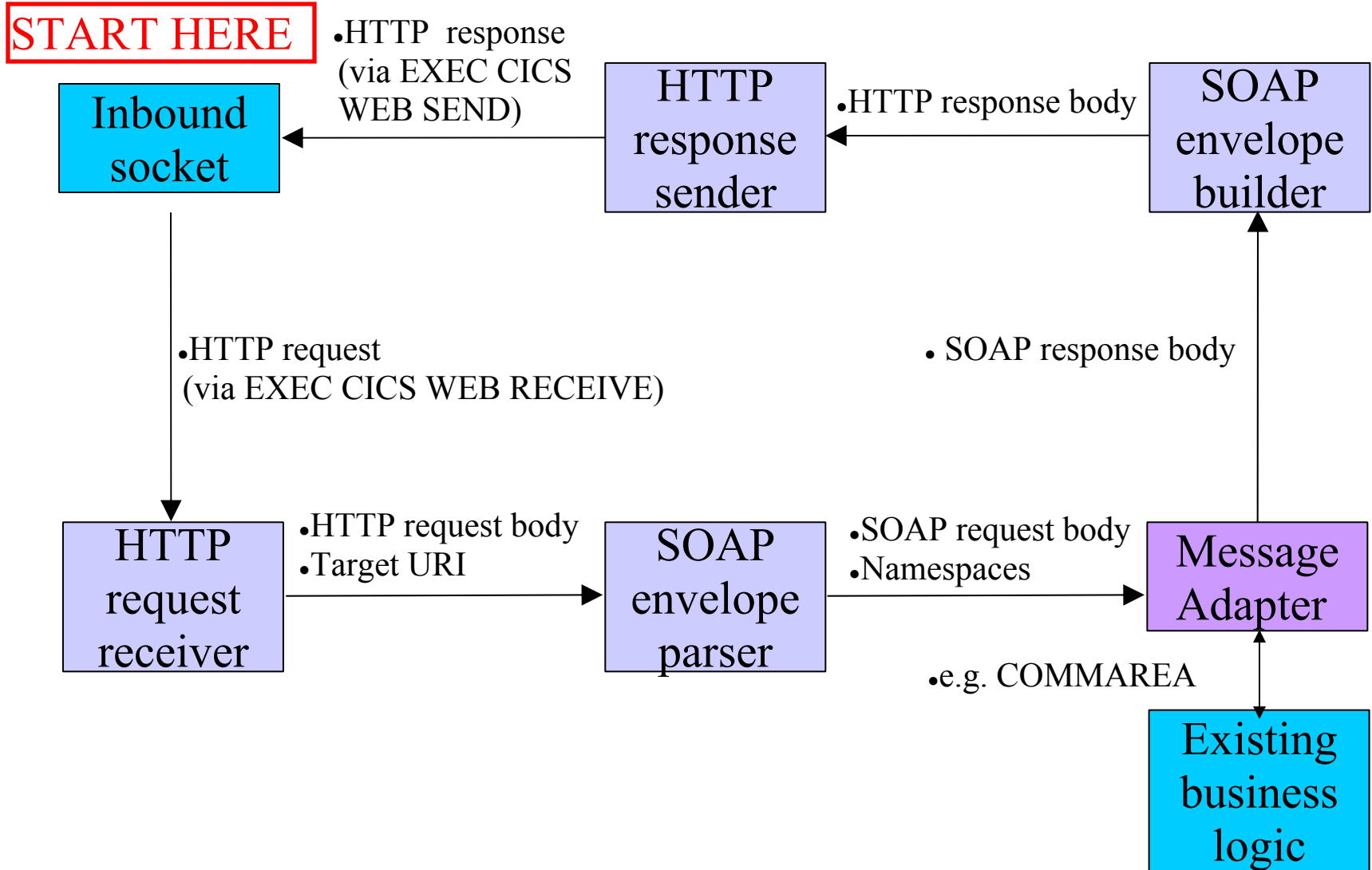
- Handlers are CICS application programs
- BTS activity programs
- Interface: named containers carrying raw XML

Inbound SOAP/HTTP Pipeline

Inbound



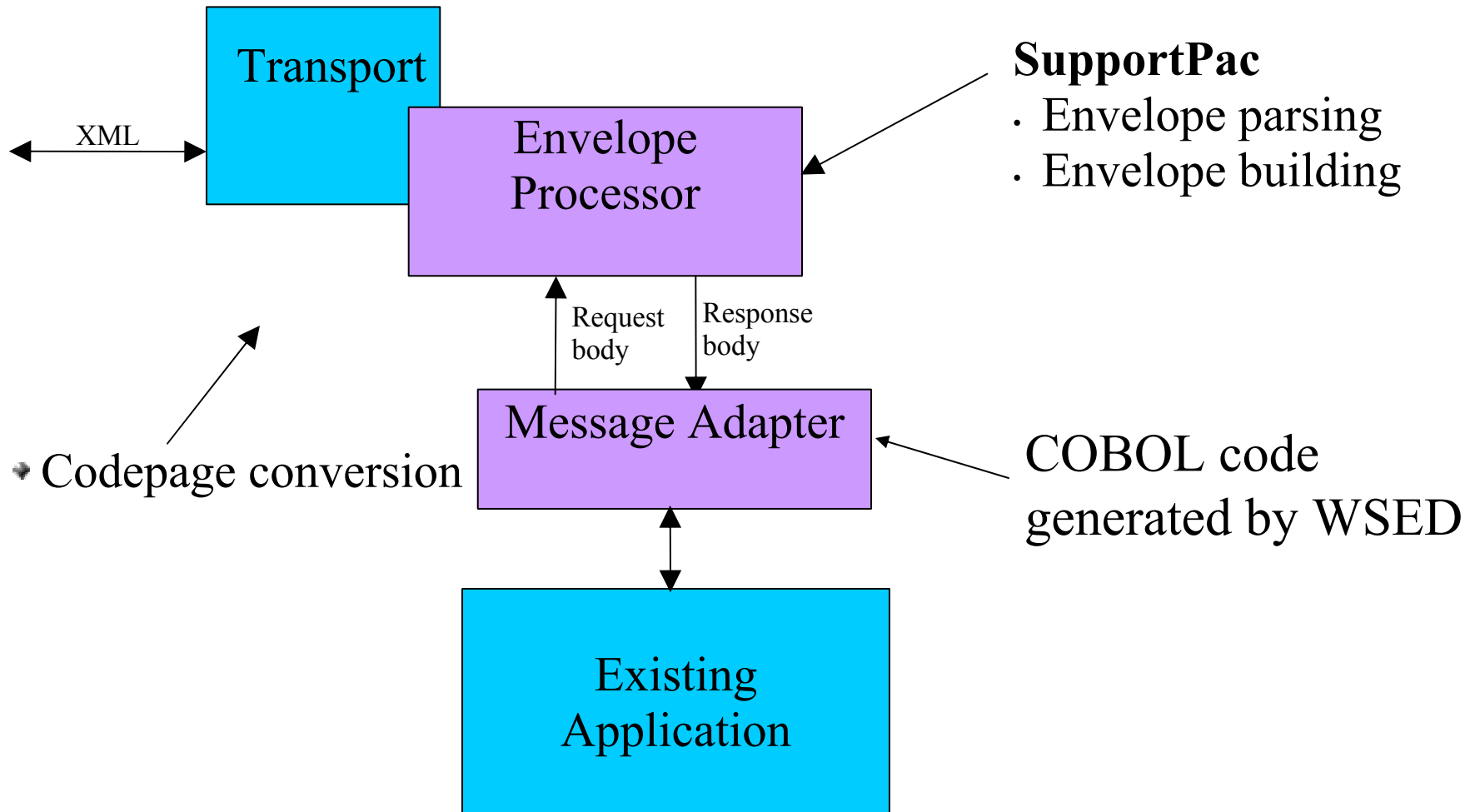
Inbound Dataflow



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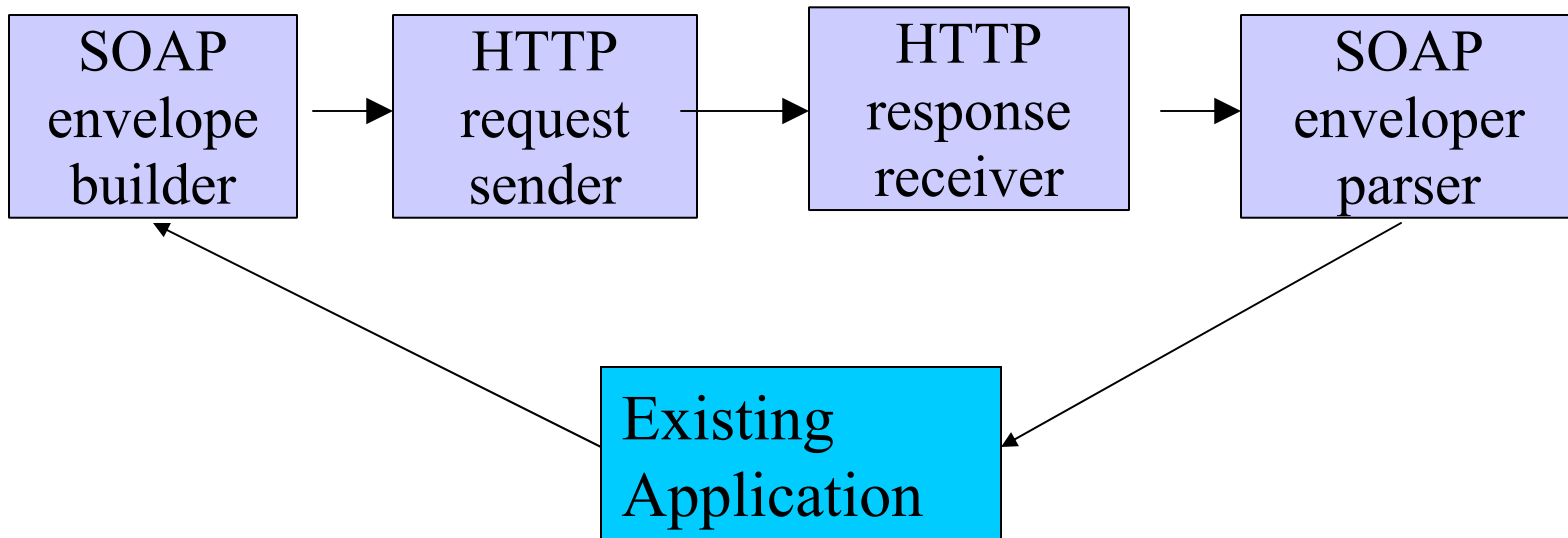
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Function Overview: Outbound

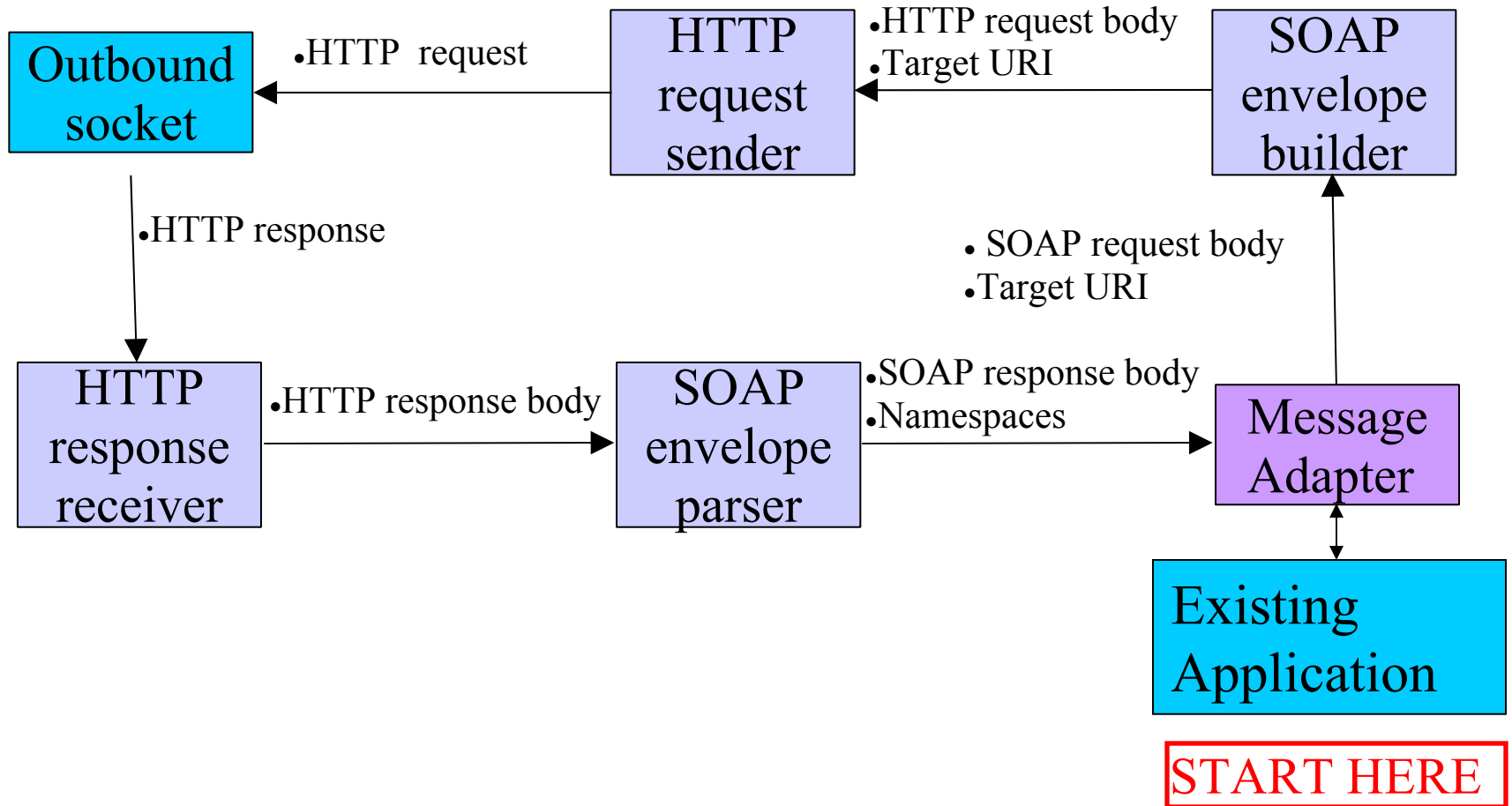


Outbound SOAP/HTTP Pipeline

Outbound:



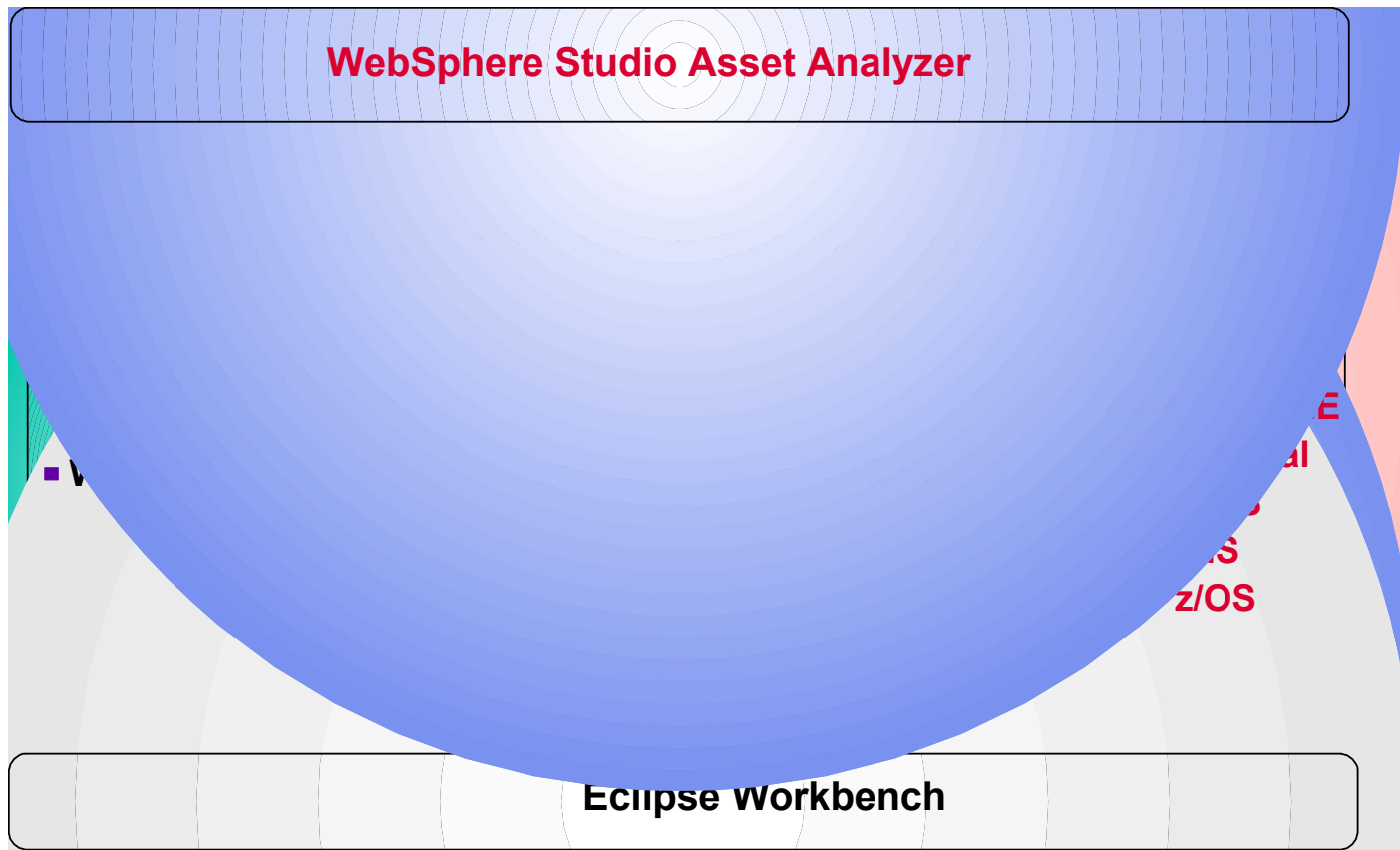
Outbound Dataflow



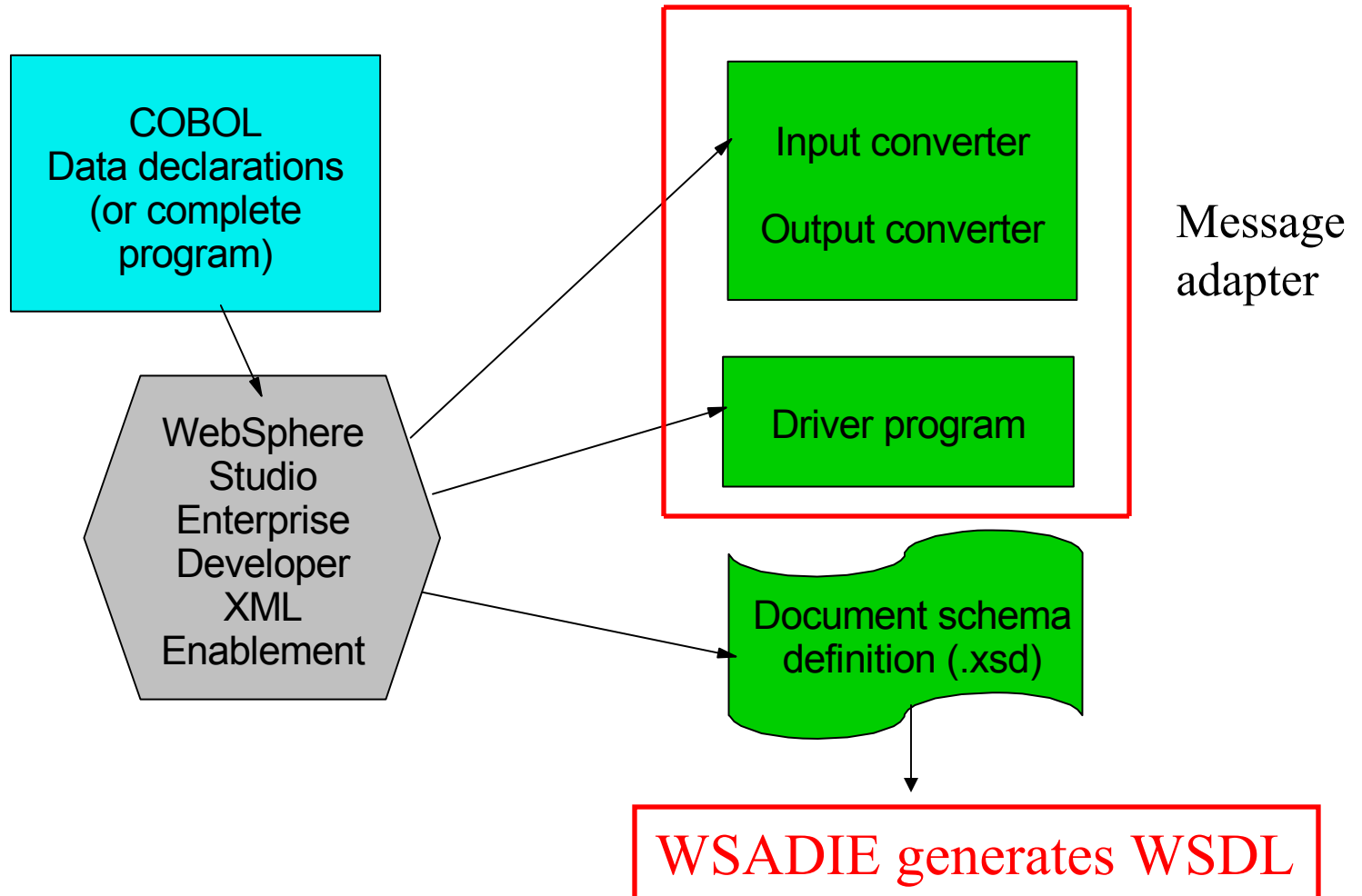
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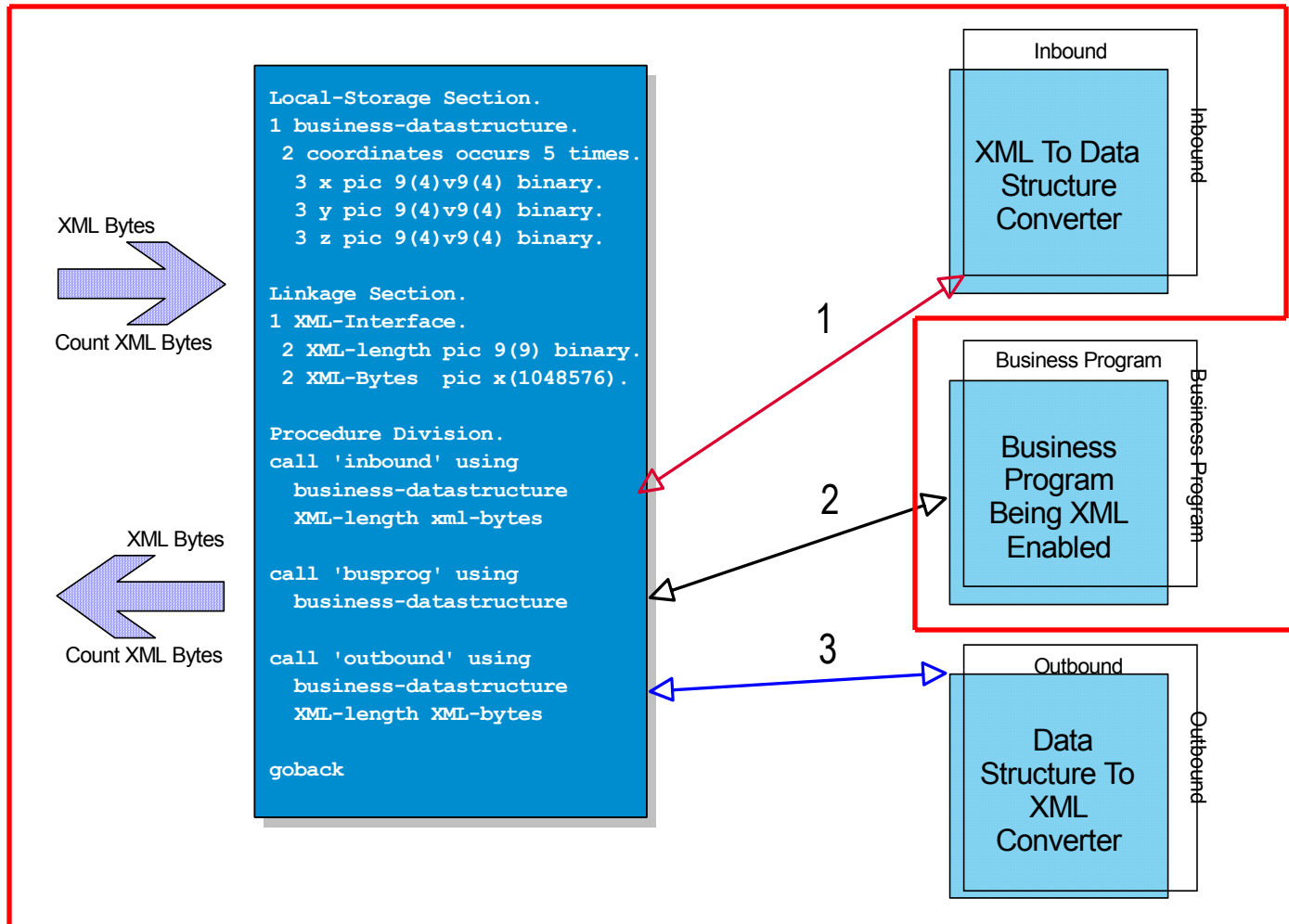
WebSphere Studio Tools



How WSED Generates Message Adapter



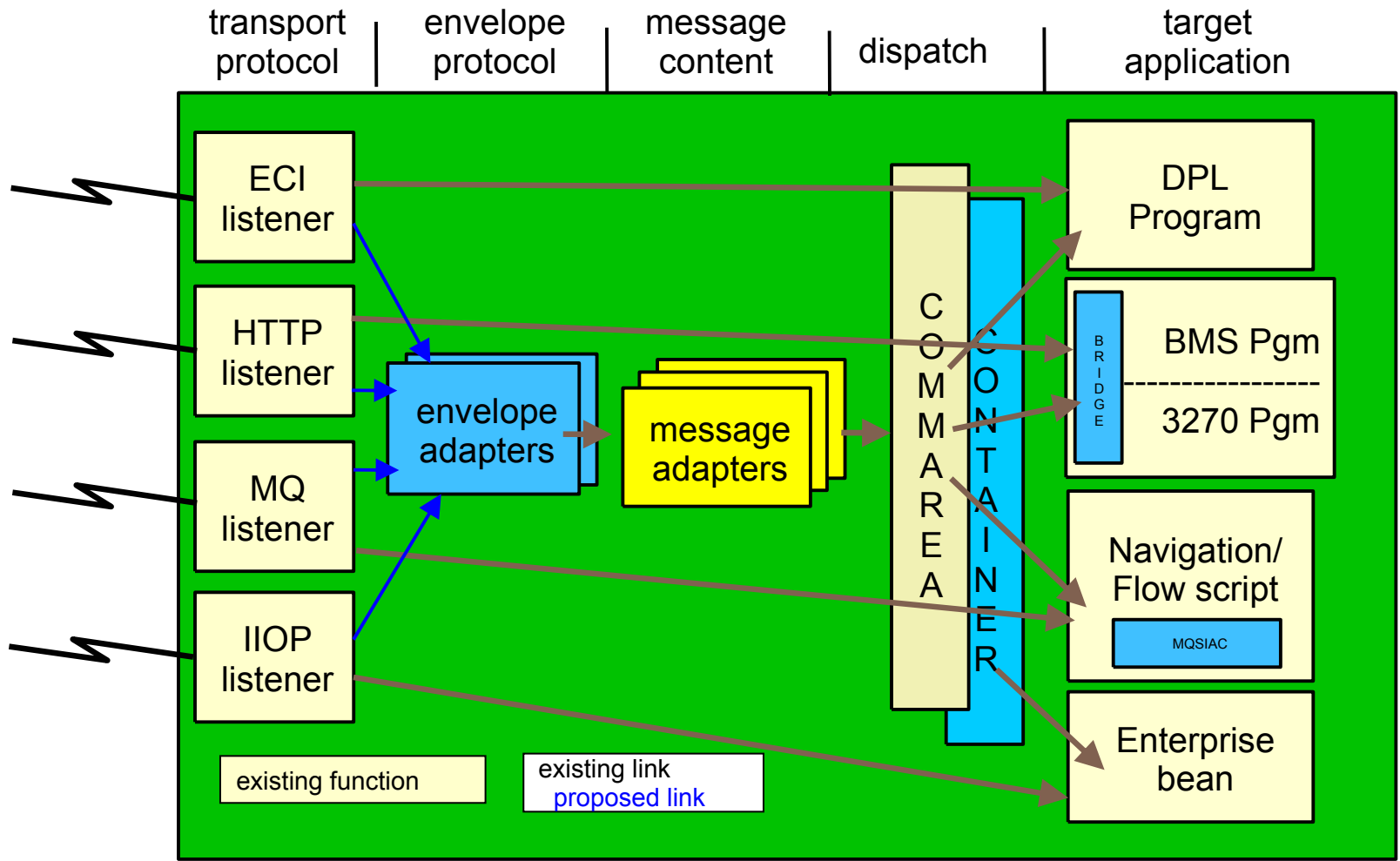
How Message Adapter Works



Pre-requisite Software

- CICS TS V1.3 or later
 - BTS datasets required for Containers
 - CICS TS V2.2 required for outbound HTTP
- Enterprise COBOL or PL/I V3
 - for XML parsing
- WSED V5
 - for generating message adapters

Future XML Architecture for CICS



Summary

- Enterprise CICS applications may be invoked via SOAP-encoded service requests
 - over HTTP or MQSeries
 - alternative to J2EE connectors
- SOAP envelope and header processing handled by Tech Preview function
- SOAP body handled by COBOL message adapter program and generated converter programs
- Target application LINKed to using COMMAREA