Living with Pacific Application Server for OpenEdge (PAS for OpenEdge)

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What We Will Be Talking About

- Architecture
- Configuration
- Administration
- Migration
- Deployment
- Demo

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PAS for OpenEdge Architecture


CHANGE
AHEAD

Architecture: Basics

- It is a web server:
  - Tomcat
- It is not a repackaged AppServer
  - We migrated the functionality – not the implementation
- Its designed for the Cloud
  - Scales
  - Security
  - New monitoring and administration tools

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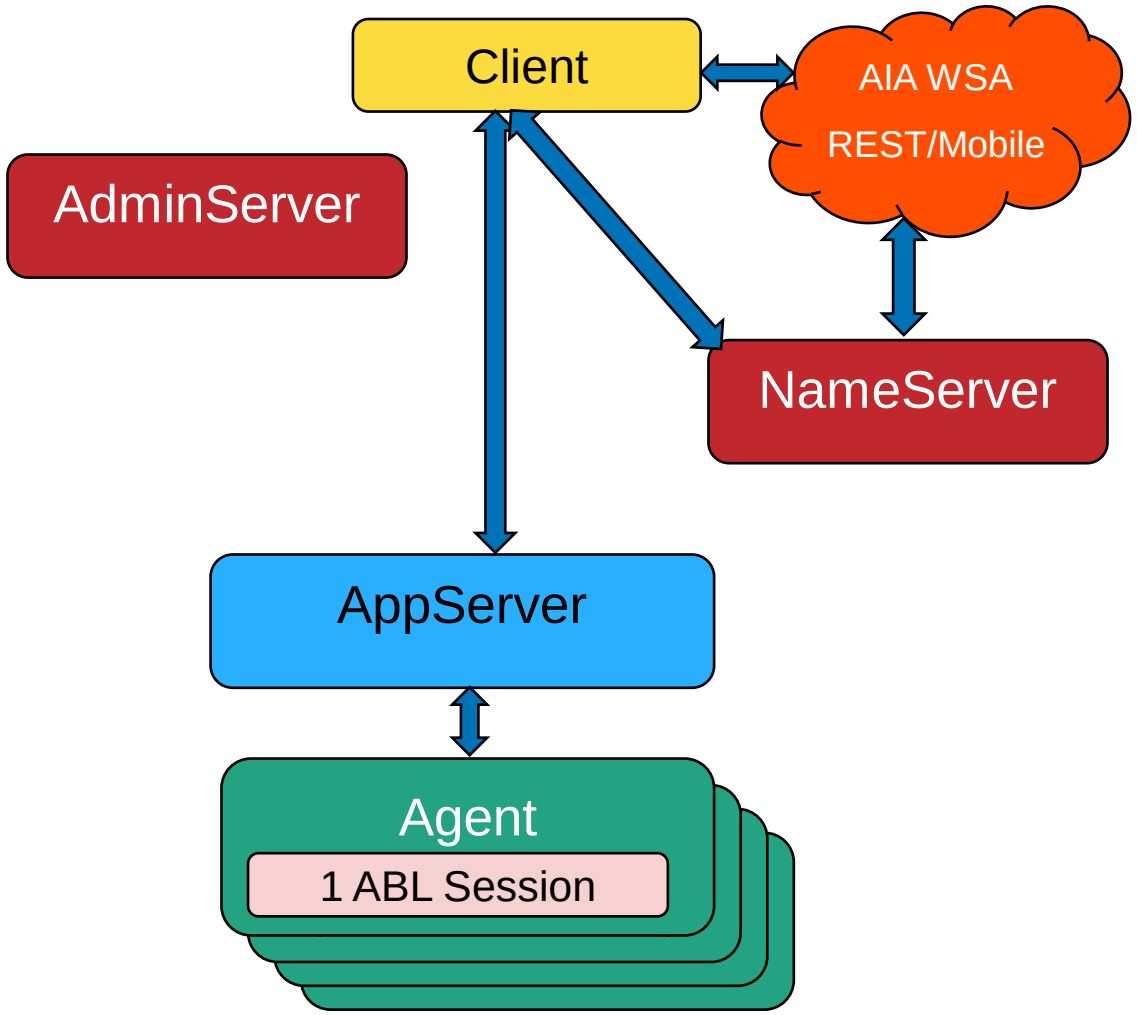
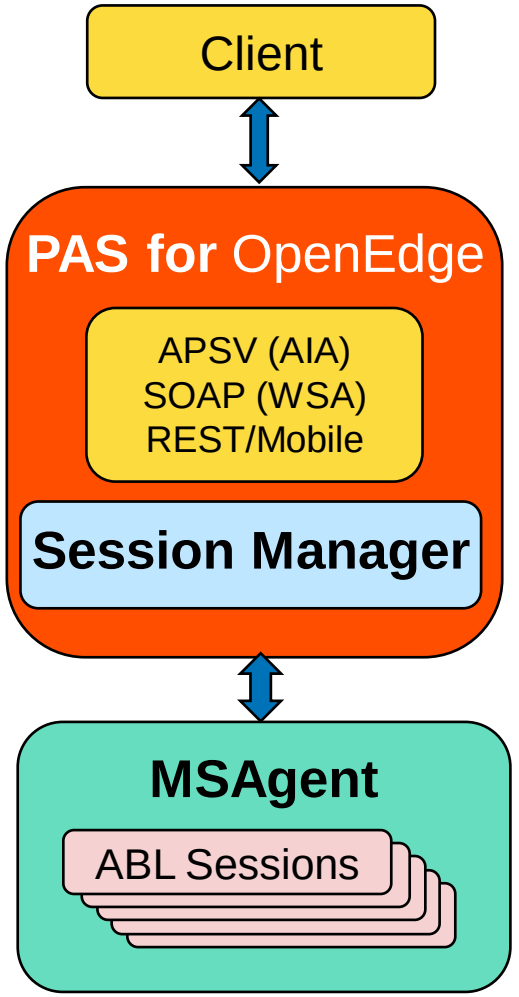
Architecture: Components

Classic AppServer Components



PAS for OpenEdge Components



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Architecture: Session Models

Classic Appserver	PAS for OpenEdge
AppServer sets connection state State-aware, State-reset, Stateless State-free	PAS for OE has no connection state
Client must connect to AppServer with expected state	Client controls ABL session model via CONNECT –*sessionModel* Stateful: -sessionModel Session-Managed Statefree: -sessionModel Session-Free

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Architecture: Multi-Session Agent

- Multiple client requests at the same time
- Supports both Session-Managed and Session-Free request simultaneously
- Manages database shared memory connections
- Uses much less system resources
- Handles multiple times more transactions than the single session AppServer agents

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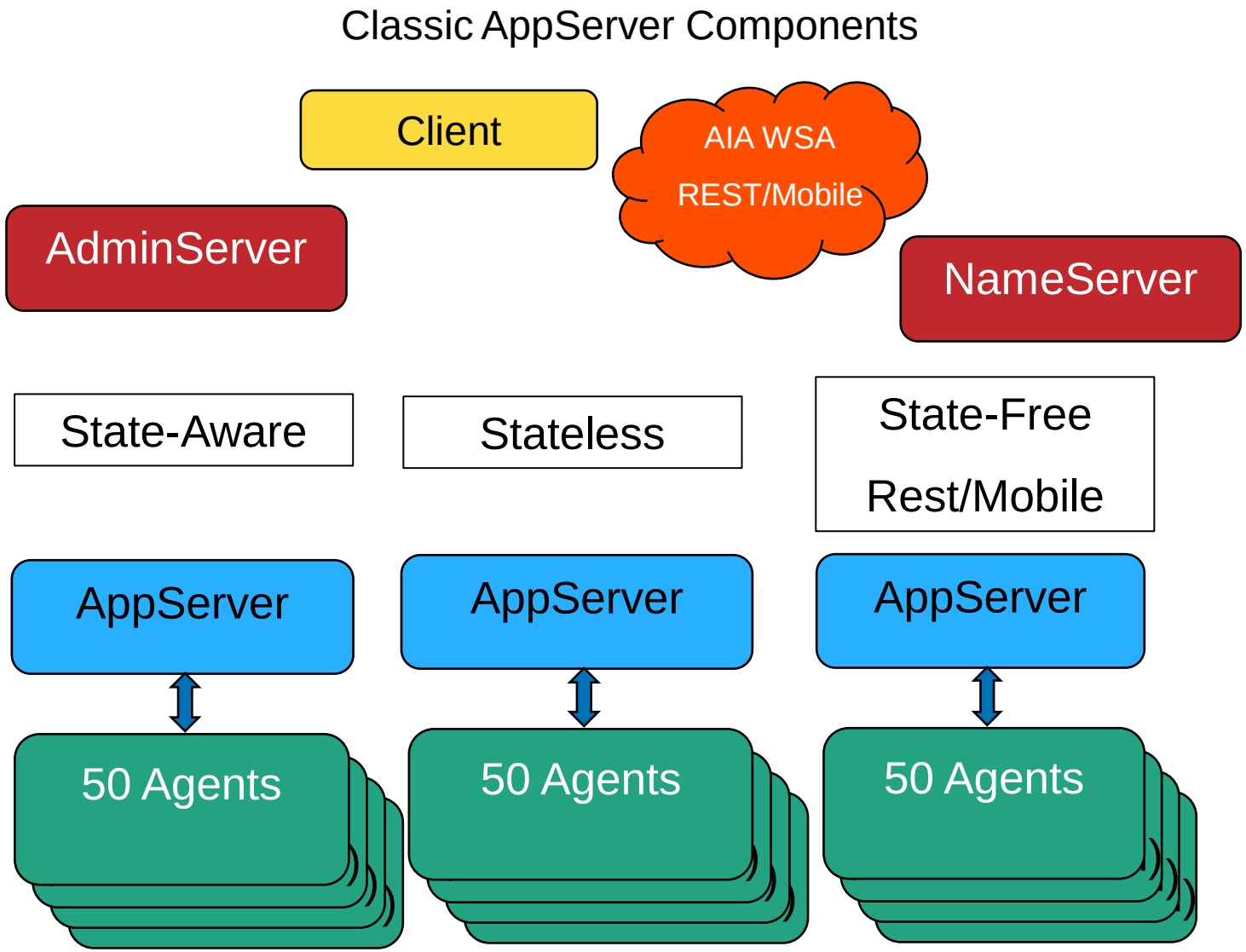
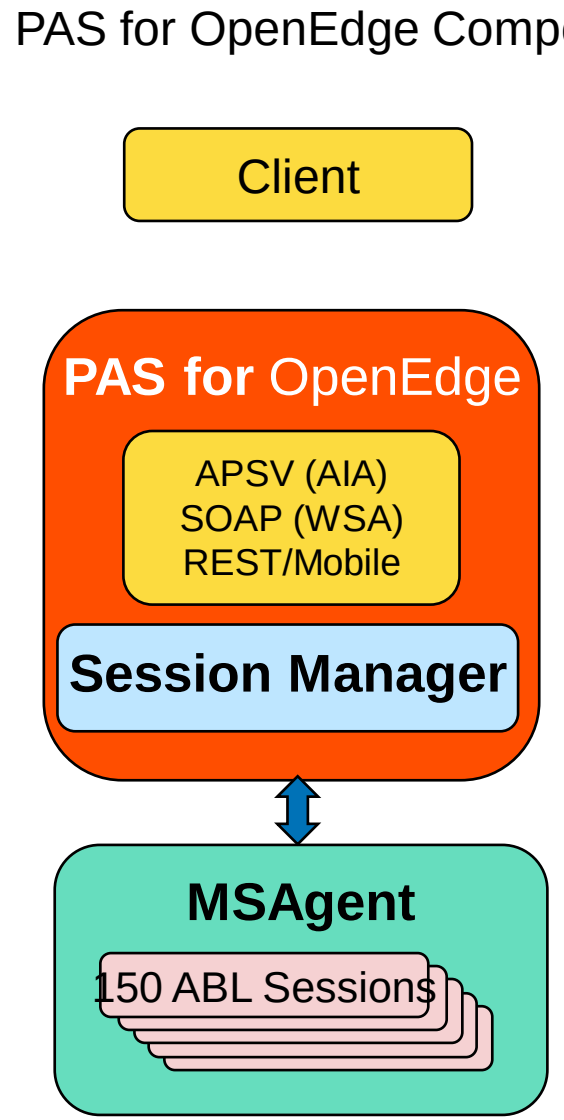
Architecture: Sample





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Architecture: Products

- PAS for OpenEdge Development
  - Debug and management tools installed
  - We create a sample instance at install time (OEPAS1)
  - Limited to 5 concurrent connections and 1 msagent
  - Able to compile code
  - Installed automatically with Progress Developer Studio (64-bit)
- PAS for OpenEdge Production
  - Designed for high security
  - Unable to compile code
  - Debug and management tools _NOT_ installed by default
  - Unlimited concurrent connections and agents

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Architecture: NameServer and AdminServer

- There is _NO_ NameServer with PAS for OpenEdge
  - Load balancing will be handled _before_ the PAS for OpenEdge instance
  - Any HTTP/HTTPS load balancing product should work
- The AdminServer is not required to manage PAS for OE unless:
  - you want to PUBLISH from Developer's Studio (PDSOE)
  - you want to manage PAS for OpenEdge using OpenEdge Explorer
  - you want to monitor PAS for OpenEdge using OpenEdge Management

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PAS for OpenEdge Configuration

Configuration

- Create a new PAS for OpenEdge instance
  - In the Classic AppServer you created a new AppServer by adding a definition in the ubroker.properties file
  - With PAS for OpenEdge you create an working instance of the “read-only” instance in $DLC/servers/pasoe in a new location
- $DLC/servers/pasoe/bin/tcman.sh create /psc/115/wrk/oepas1
- Start the new PAS for OpenEdge instance
  - <pas_instance>/bin/tcman.sh start

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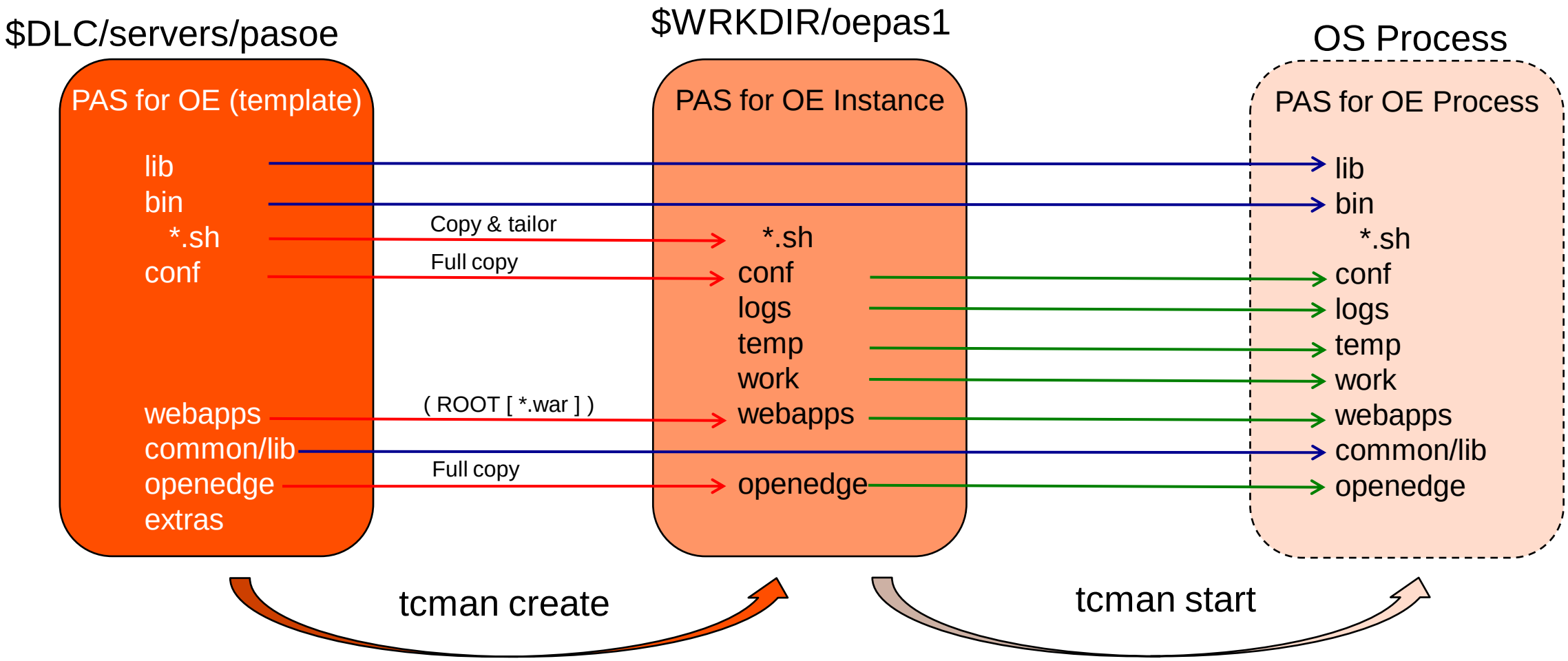
Configuration: PAS for OpenEdge at Instance Create and Run-time



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Configuration: Files

- openedge.properties
  - In <pas_instance>/conf directory
  - Use oeprop.sh/bat to make changes
- appserver.properties
  - In <pas_instance>/conf directory
  - Use tcman.sh features to modify values in this file
- server.xml
  - In <pas_instance>/conf directory
  - JMXLifeCycle, HTTP, HTTPS, AJP13, Cluster, more…
- Log files
  - In <pas_instance>/logs directory
  - OpenEdge and Tomcat files

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PAS for OpenEdge Administration

Administration: tcman.sh/.bat

TCMAN is your all-in-one administration tool

tcman extends all Tomcat administration and enables PAS for OE administration

For help with TCMAN:

tcman.sh/.bat help

tcman.sh/.bat help action

- Server actions
  - create
  - start
  - clean
  - feature
  - env
  - plist
  - delete
  - stop
  - clean -A
  - ON or OFF
  - env and running status
  - process IDs
- Manager actions
  - deploy
  - enable
  - undeploy web apps
  - disable web apps

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Administration: More Command Line Tools…

- deployREST.sh(.bat)
  - *deployREST.sh(bat) <paar-file> <appname>*
- deploySOAP.sh (.bat)
  - *deploySOAP.sh(.bat) <wsm-file> <appname>*
- oeprop.sh (.bat)
  - *oeprop.sh* (.bat) *oepas1.ROOT.SOAP.wsaUrl=http://localhost:8888/soap*
  - *oeprop.sh* (.bat) *+AppServer.Agent.oepas1.PROPATH=.,${WRKDIR}*
  - *oeprop.sh* (.bat) *~ AppServer.SessMgr.agentStartupParam="-db sports"*

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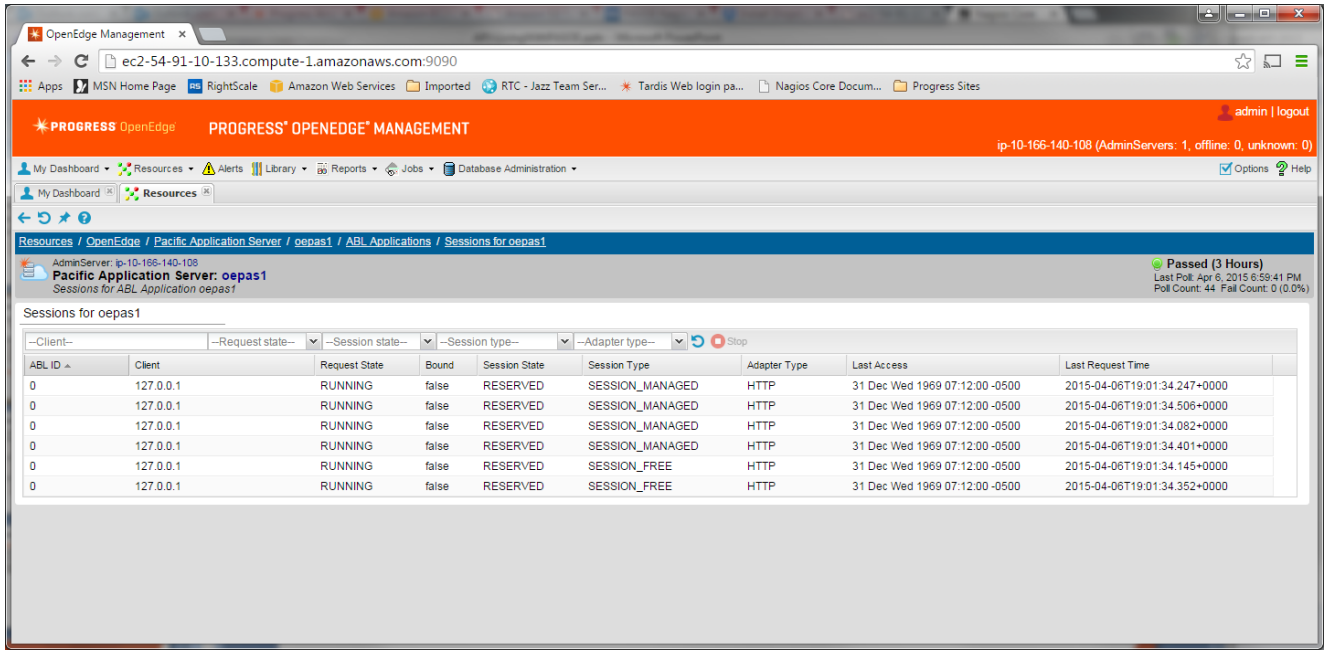
Administration: OpenEdge Explorer and Management

- OpenEdge Explorer
  - For full management AdminServer must be local
- OpenEdge Management
  - For full management AdminServer must be local
  - Can monitor and alert
  - But trending is not available yet
- More in DEMO



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Administration: Log Files

- Log files are located in the <pas_instance>/logs directory
- Problems with the web server:
  - *catalina.out* – log for tomcat instance startup and shutdown
  - *catalina.<date>.log* – same as catalina.out and standard error
- Problems with an application
  - *localhost.<date>.log* – application logging
  - *localhost_access_log.<date>.txt* – HTTP response messages (200,401,404)
- Problems with the PAS for OpenEdge instance
  - <application_name>.<date>.log – session manager messages and errors
  - <application_name>.agent.log – multi-session agent messages and errors

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Administration: New Monitoring Access!

Classic AppServer tools

- asbman –query
- OpenEdge Explorer
- OpenEdge Management

PAS for OpenEdge

- Management REST API
  - The “oemanager” application must be installed for access to the REST API
- JMX access
  - Using Jconsole
  - Locally by PID
  - Remotely running “tcman.sh/.bat feature JMXLifecycle=on”
- Nagios
  - 3rd party tool recommended by Tomcat for monitoring
  - Uses the tools above to monitor, alert and graph
- More in DEMO

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PAS for OpenEdge Migration

Migration: Connect Method

- REST/Mobile clients: URL still uses ../rest/..
- SOAP clients**:** ../soap/.. instead of ../wsa/.. in URL
- OpenEdge clients URL connection format only

-URL http://myhost:8810/(appname)/apsv

If appname=ROOT, you may use ROOT or skip the appname

-URL http://myhost:8810/ROOT/apsv or -URL http://myhost:8810/apsv

- Reference: *Connecting to AppServers Using a URL*

NOTE: Since all of the old web servlets are now encapsulated in one PASOE we use these “transports” to identify the communication: rest, soap and apsv

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Migration: Configuring AppServer Event Procedures

- Changes to openedge.properties
  - New agent Startup and Shutdown values
  - srvr values have been renamed to session

- Some ABL code may need changes
  - CONNECT – as in previous slide
  - sessionStartupProc & sessionShutdownProc
    - Binding a session (mimic State-Aware)
    - QUIT to clean up (mimic State-Reset)

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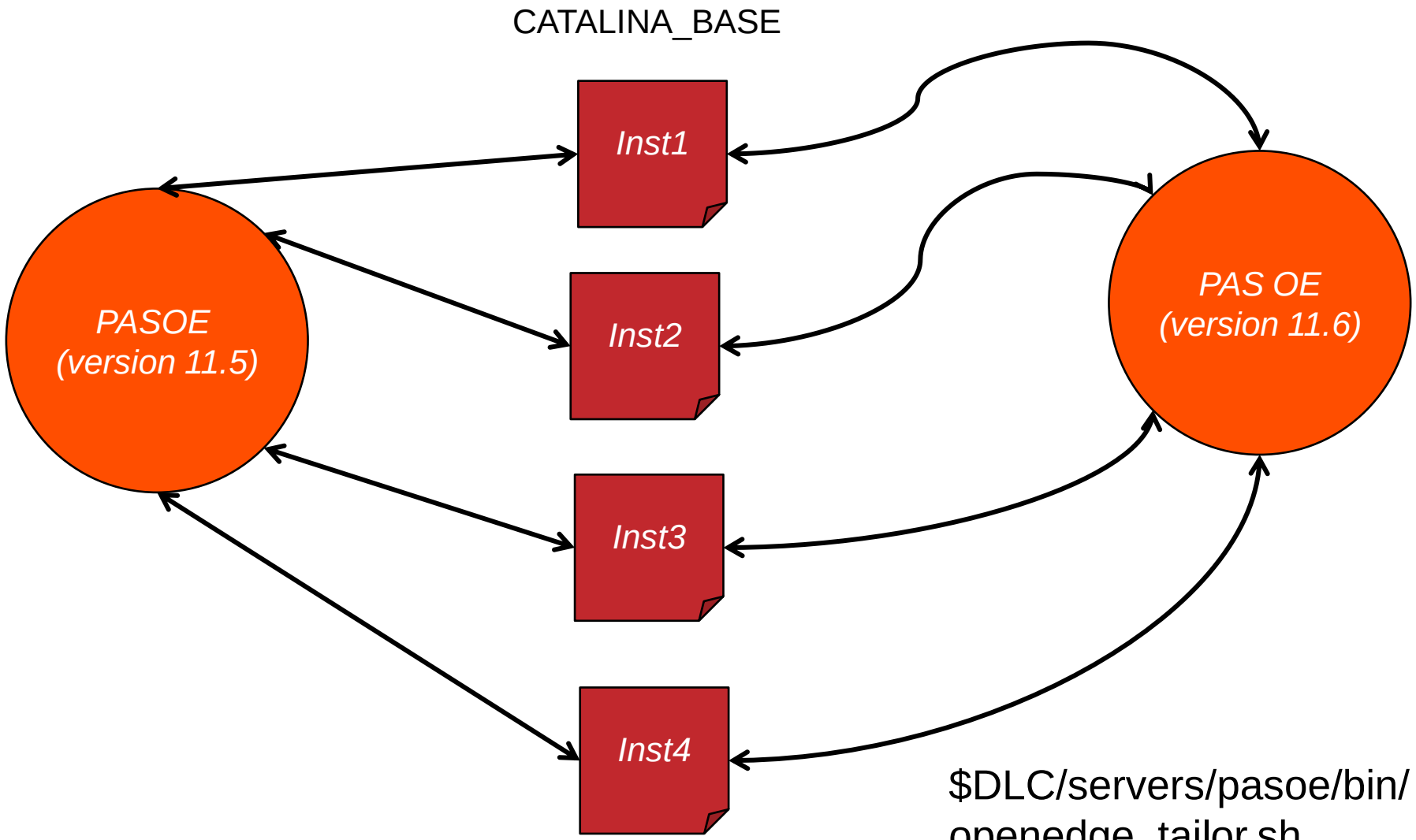
Migration - PASOE Upgrades



$DLC/servers/pasoe/bin/
openedge_tailor.sh

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PAS for OpenEdge Deployment

Deployment: Applications

- Design your Application in Developer's Studio (PDSOE)
  - Test your application from PDSOE to PASOE
  - Package it for deployment to PASOE
- Copy and change tailoring script to tailor your deployment package
  - Use $DLC/servers/pasoe/bin/oeabl_tailor.sh(.ps1) and oeabl_tlr.sh(.bat) as templates
  - Add, modify openedge.properties as need
  - Add any tailoring you need
- Install your Production PASOE
  - Copy tailoring scripts to $DLC/servers/pasoe/bin
  - Copy war file to production location
  - Deploy your application with <pas-instance>/bin/tcman.sh(.bat) deploy <war-file>

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Deployment: Classic WebSpeed Messenger with PASOE

- Designed to add Classic WebSpeed Messenger with 11.5.1
  - WebSpeed functionality not in 11.5
  - This allows you to run the PASOE web server as the messenger host
- Files
  - In $DLC/servers/pasoe/extras/wscgi.war
  - In $DLC/servers/pasoe/bin
    - wscgi_tlr.sh
      - wscgi_tailor.sh
    - wscgi_tailor.bat
      - wscgi_tailor.ps1
  - Great example of application tailoring files

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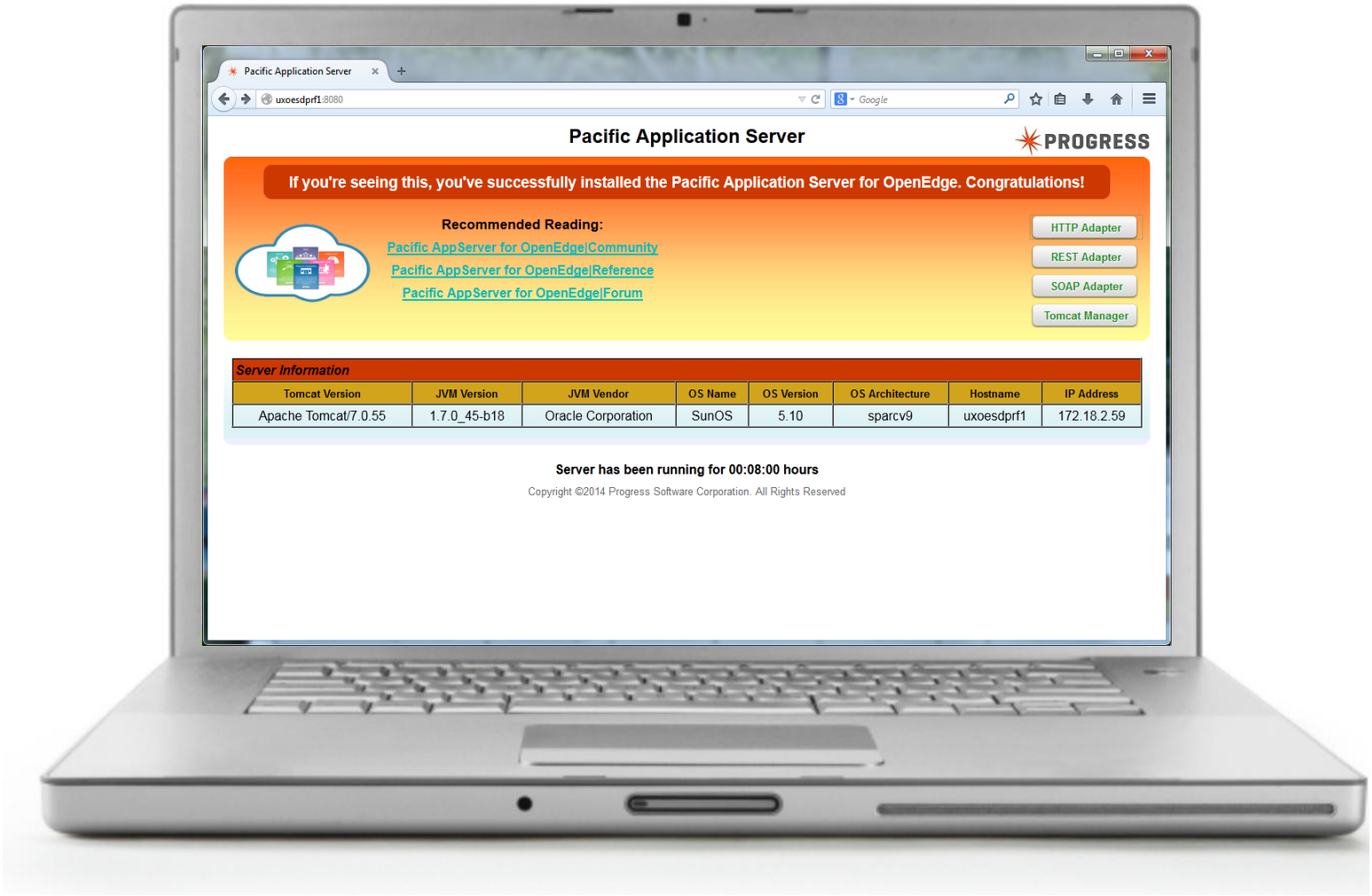
Live Demo Manage and Monitor



Q&A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