

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

Roy Ellis
Progress Software
ellis@progress.com

PROGRESS
EXCHANGE 2014

Disclaimer

- This presentation is for informational purposes only. You are cautioned that any information contained in this presentation may change in the course of product development.
- This presentation may not be interpreted as any commitment on behalf of Progress, and future development, timing and release of any products, features or functionality described in this presentation remains at the sole discretion of Progress.

What We Will Be Talking About

- Architecture
- Configuration
- Administration
- Migration
- Demo
- Early Software Access Program

PAS for OpenEdge Architecture

PROGRESS
EXCHANGE 2014



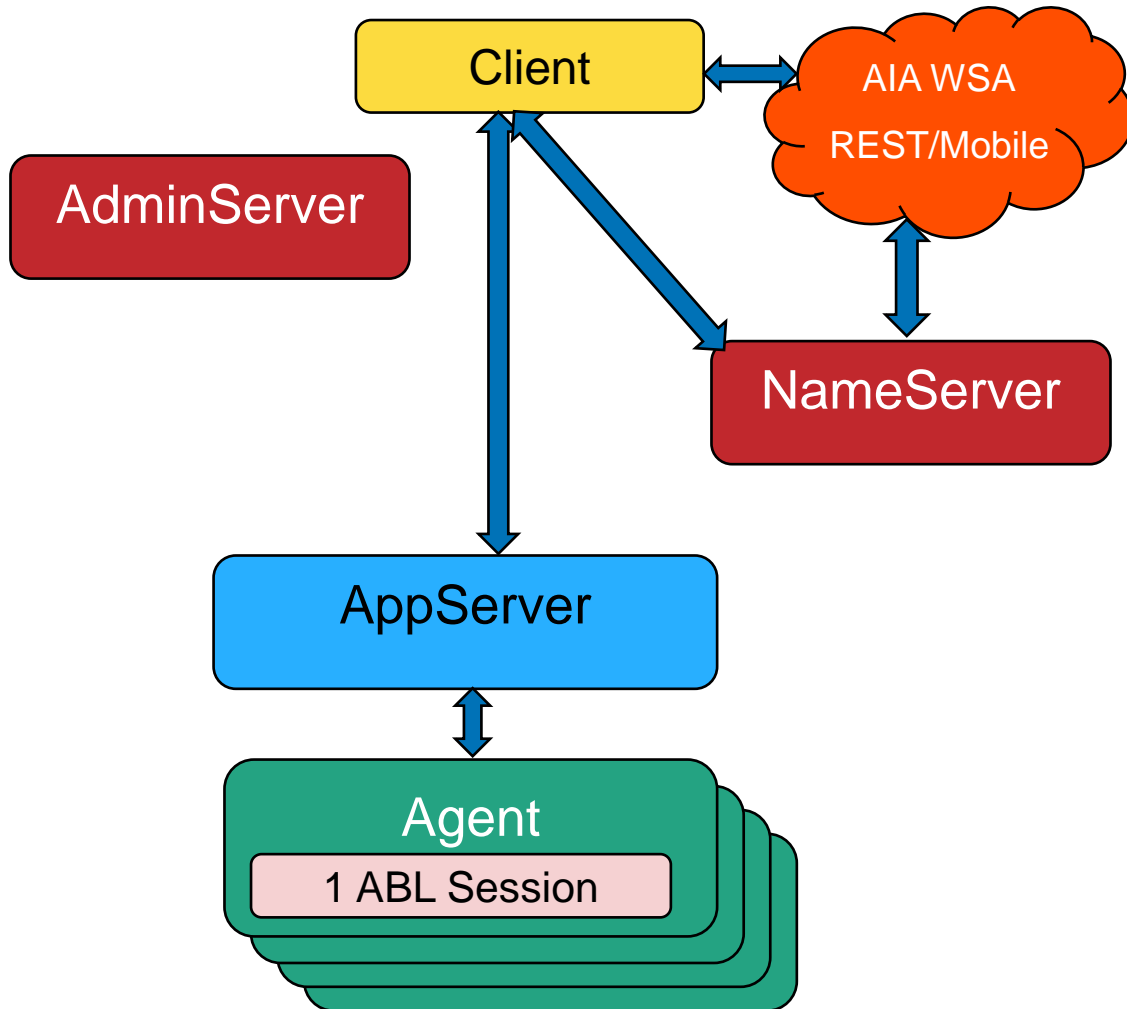
**CHANGE
AHEAD**

Architecture: Basics

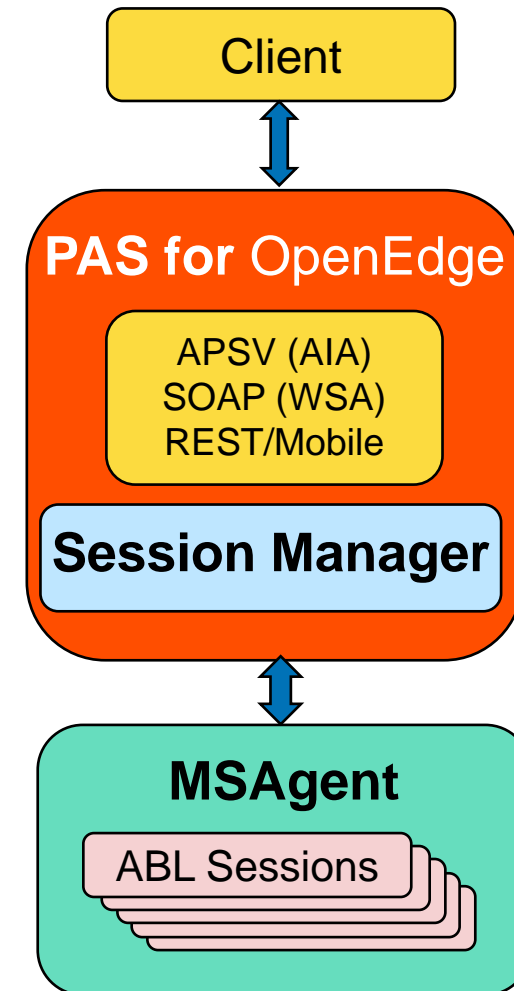
- **It is a web server:**
 - Tomcat
- **It is not a repackaged AppServer**
 - We migrated the functionality – not the implementation
- **Its designed for the Cloud**
 - Scales
 - New monitoring and administration tools

Architecture: Components

Classic AppServer Components



PAS for OpenEdge Components



Architecture: Session Models

Classic AppServer Instance

- Session states are controlled and set at the AppServer
 1. State-aware
 2. State-reset
 3. Stateless
 4. State-free

PAS for OpenEdge Instance

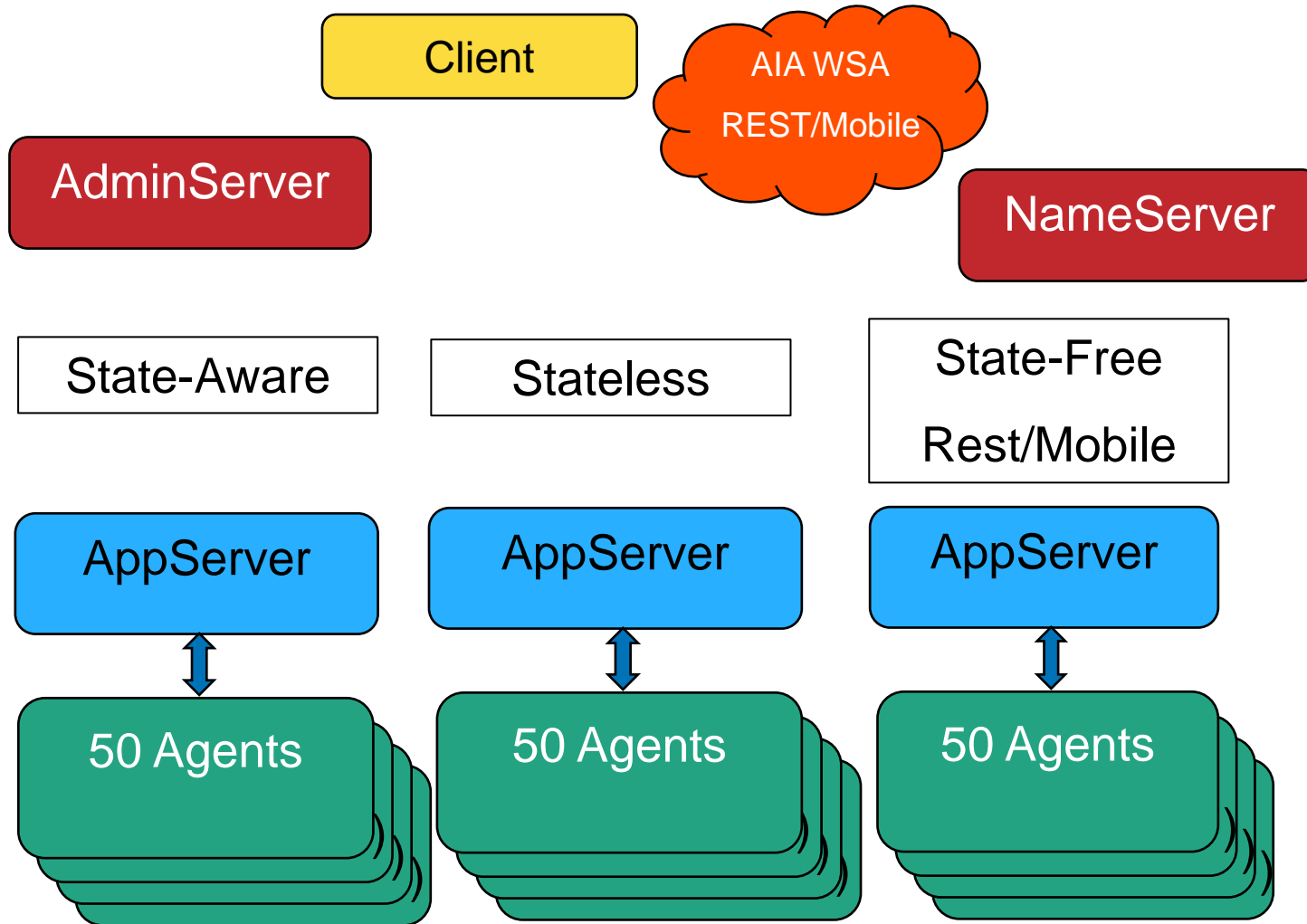
- Client controls ABL session model via the `CONNECT -sessionModel` option
 1. Stateful session model
 - `-sessionModel Session-Managed`
 2. Statefree session model
 - `-sessionModel Session-Free`

Architecture: Multi-Session Agent

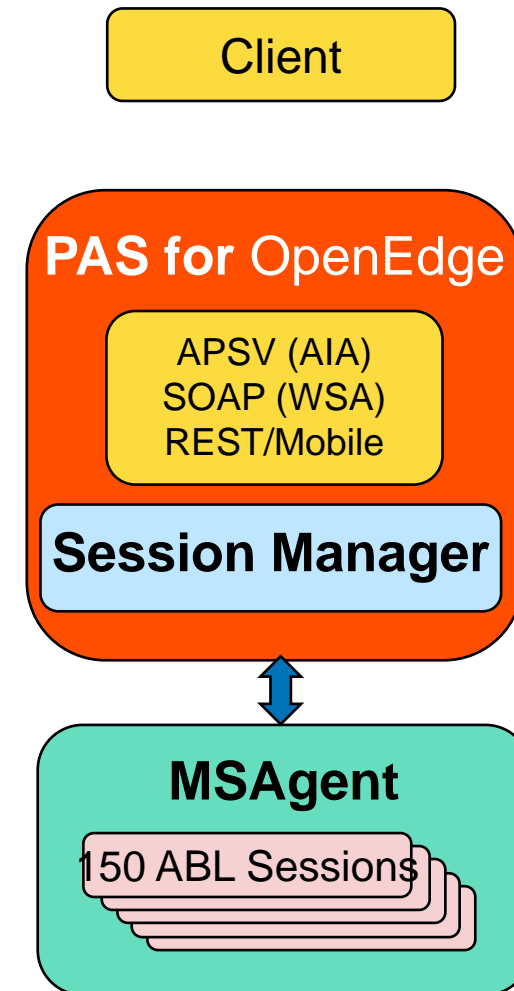
- Multiple client requests at the same time
- Supports both Session-Managed and Session-Free request simultaneously
- Manages database shared memory connections
- Uses much less system resources
- Is as much as 7 times faster than the single session AppServer agents

Architecture: Sample

Classic AppServer Components



PAS for OpenEdge Components



Architecture: Products

■ **PAS for OpenEdge Development**

- Debug and management tools installed
- We create a sample instance at install time (OEPAS1)
- Limited concurrent connections
- Ability to compile code
- Installed automatically with Progress Developer Studio

■ **PAS for OpenEdge Production**

- Designed for high security
- Unable to compile code
- Debug and management tools **_NOT_** installed by default
- Unlimited concurrent connections

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
 - you want to manage PAS for OpenEdge using OpenEdge Explorer
 - you want to monitor PAS for OpenEdge using OpenEdge Management

PAS for OpenEdge Configuration

■ **Create a new PAS for OpenEdge instance**

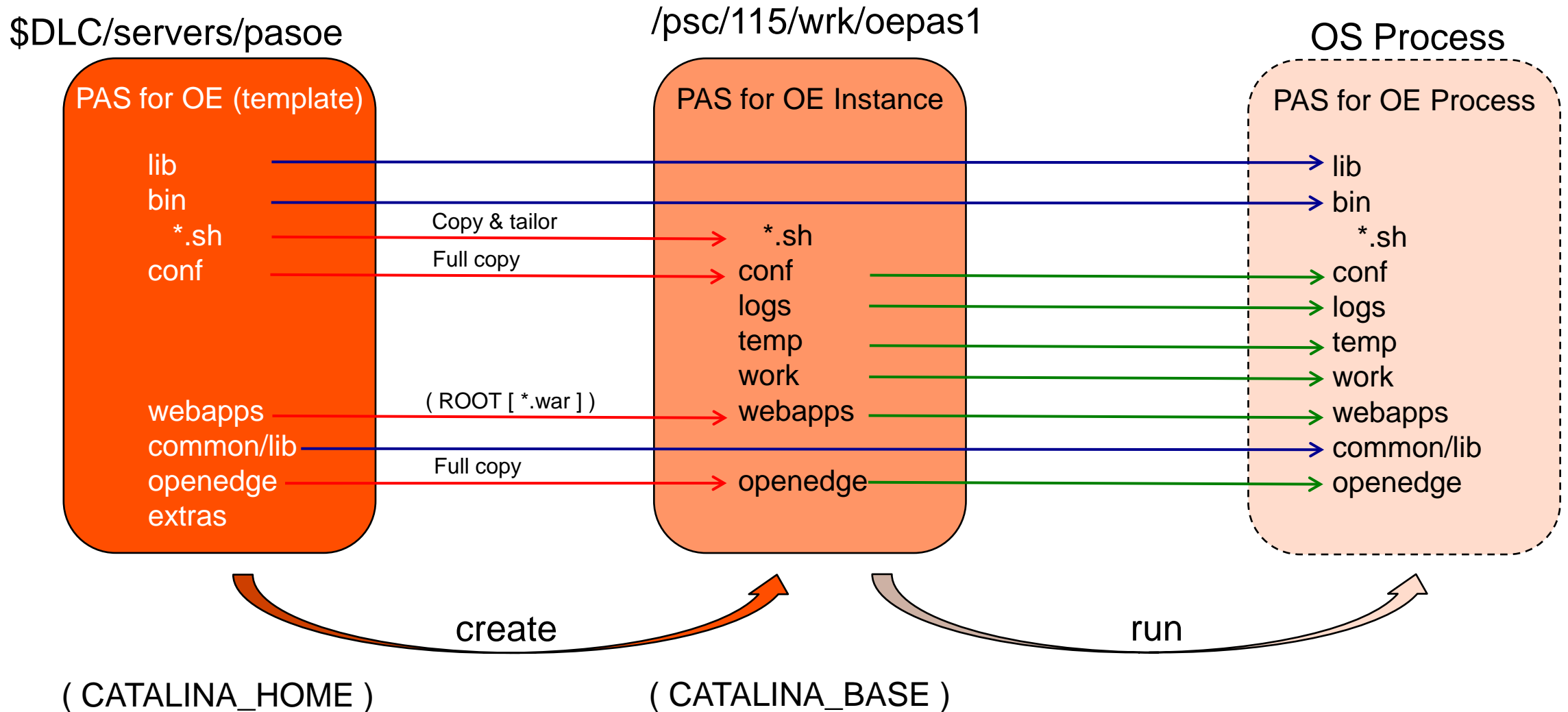
- In the Classic AppServer you created a new AppServer by adding a definition in the ubroker.properties file
- With PAS for OpenEdge you create an working instance of the “read-only” instance in \$DLC/servers/pasoe in a new location

■ **\$DLC/servers/pasoe/bin/tcman.sh create -p 8080 -P 8443 -s 8901 /psc/115/wrk/oepas1**

■ **Start the new PAS for OpenEdge instance**

- /psc/115/wrk/oepas1/bin/tcman.sh start

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



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

- **Log files**

- In <pas_instance>/logs directory
- OpenEdge and Tomcat files

PAS for OpenEdge Administration

PROGRESS
EXCHANGE 2014

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
- delete
- stop
- clean -A
- ON or OFF
- shows env and running status

■ Manager actions

- deploy
- enable
- undeploy web apps
- disable web apps

Administration: More Command Line Tools...

- **deployREST.sh/.bat**

- undeployREST.sh/.bat

- **deploySOAP.sh/.bat**

- undeploySOAP.sh/.bat

- **oeprop.sh/.bat**

- *oeprop.sh/.bat testinst.ROOT.SOAP.wsaUrl=http://localhost:8888/soap*
- *oeprop.sh/.bat +AppServer.Agent.oepas1.PROPATH=.,\${WRKDIR}*
- *oeprop.sh/.bat ~ AppServer.SessMgr.agentStartupParam="-db sports"*

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

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

Administration: New Monitoring Access!

Classic AppServer tools

- asbman –query
- OpenEdge Explorer or Management

PAS for OpenEdge

■ Management REST API

- The “oemanager” application must be installed for access to the REST API

■ JMX Remote 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

Administration: Upgrading Your Installation

- **Each instance is a self contained Application module**
- **So upgrading is easy**
 - Run `openedge_tailor.sh/.bat` (if not in same location as original \$DLC)
 - Run `tcman.sh register` for full administration capabilities or using instance alias
- **Deploying an applications means**
 - Zipping (tarring) up the full instance
 - Moving it to the production machine
 - And running `openedge_tailor.sh/.bat` and `tcman.sh register`

PAS for OpenEdge Migration

PROGRESS
EXCHANGE 2014

Migration: Connect Method

- **REST/Mobile clients:** No differences in URL ../rest/.. to ../rest/..
- **SOAP clients:** ../soap/.. instead of ../wsa/.. in URL
- **OpenEdge clients**
 - URL connection format only
 - -URL ***http[s]://host[:port]/[oeabl-path]/apsv***
 - Default URL
 - -URL *http://myhost:8810/apsv*
- Reference: *Connecting to AppServers Using a URL*

Migration: Configuring AppServer Event Procedures

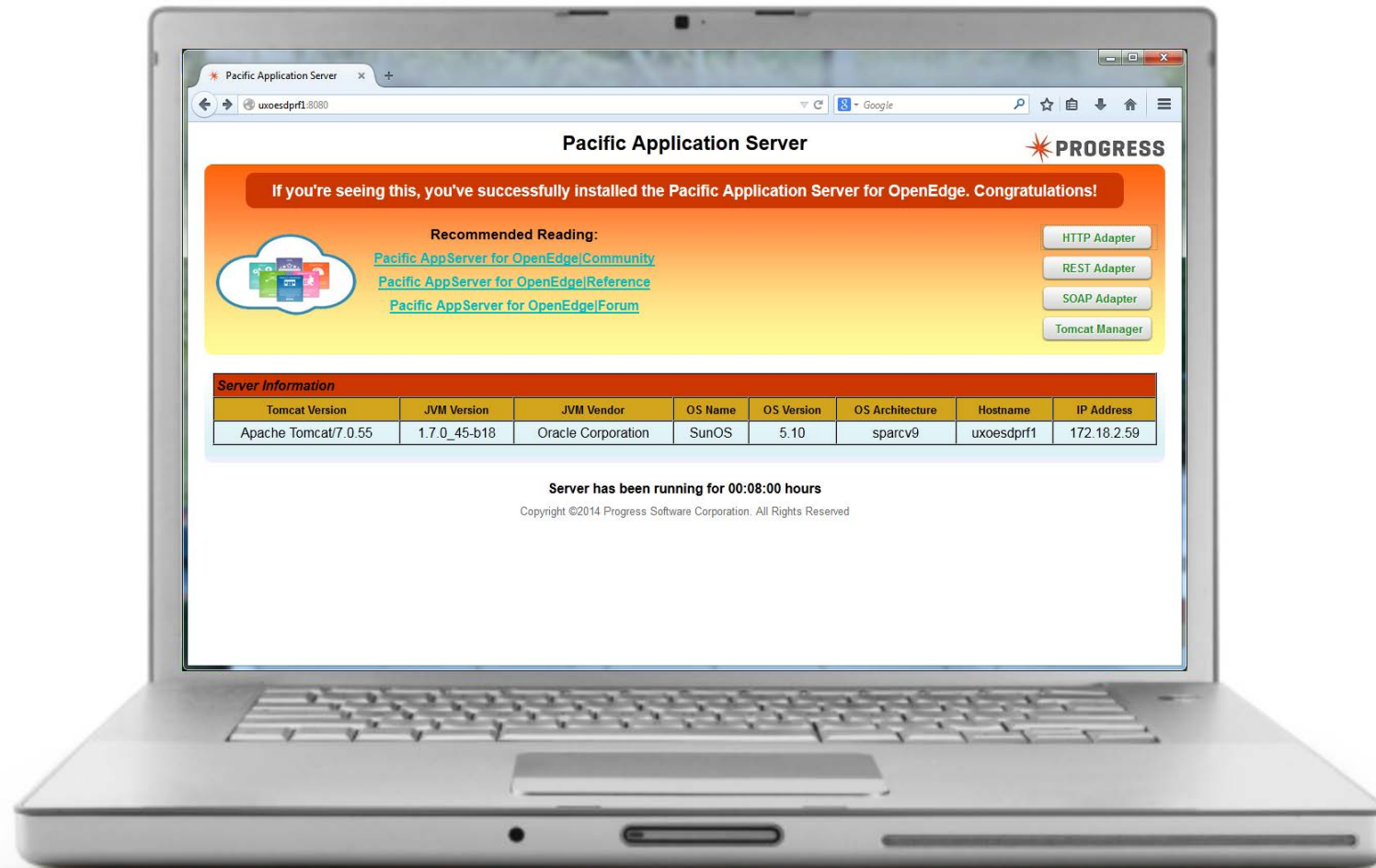
- **Changes to openedge.properties**
 - New agent Startup and Shutdown values
 - svr values have been renamed to session

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

PAS for OpenEdge Demo

PROGRESS
EXCHANGE 2014

Live Demo



PAS for OpenEdge Early Software Access Program

PROGRESS
EXCHANGE 2014

Early Software Access Program

Want to try
it before
(almost)
anyone else?

- **Sign up** for the ESAP program (started September 30, 2014)
- **Download** a cdimage or use an Arcade image to test
- Please **log any issues** in the ESAP forum



Q&A

PROGRESS EXCHANGE²⁰¹⁴

Visit the Resource Portal

- **Get session details & presentation downloads**
- **Complete a survey**
- **Access the latest Progress product literature**

www.progress.com/exchange2014



PROGRESS