



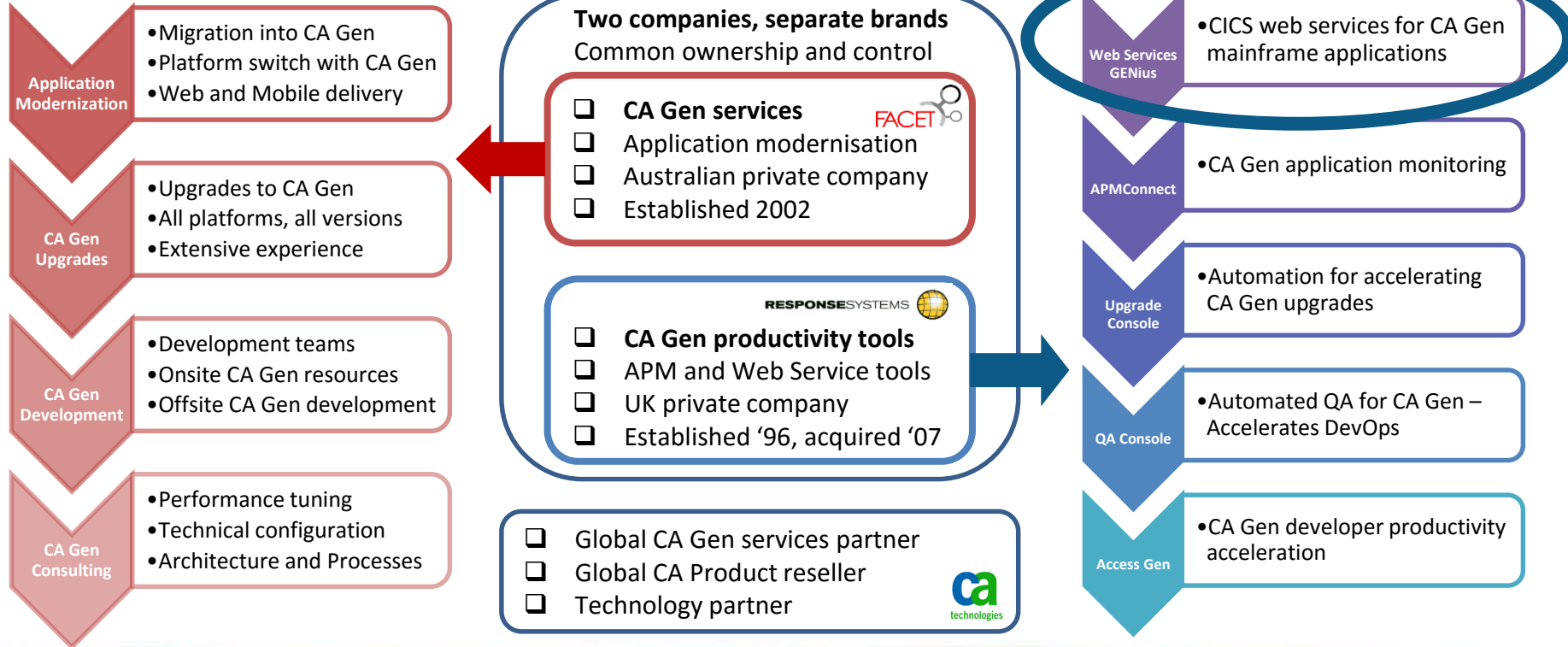
Web Services GENius

CICS Web services for CA Gen

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tim.dargavel@response-systems.com

Who we are and what we do



Customer case studies



Web Services GENius is enabling mobile delivery

- One of the primary security agencies within Australia
 - Mobile delivery of existing capabilities to the frontline is a key goal
 - Web Services GENius is being used to expose RESTful Web Services
 - No changes to the underlying applications are required
 - No interruption to committed programs of work are required
 - Exposure of RESTful APIs enables direct mobile consumption
- ✓ Web Services GENius has accelerated mobile delivery for the agency.

What is driving the need for CICS Web services?



Majority of internet access now mobile-based

Internet usage is increasingly mobile-based, and organisations need to quickly expose existing application functions from their application portfolios

Crucial functions are locked up in big applications

Exposing proven, self-contained functional modules as services, without having to change those modules, means existing applications become valuable assets

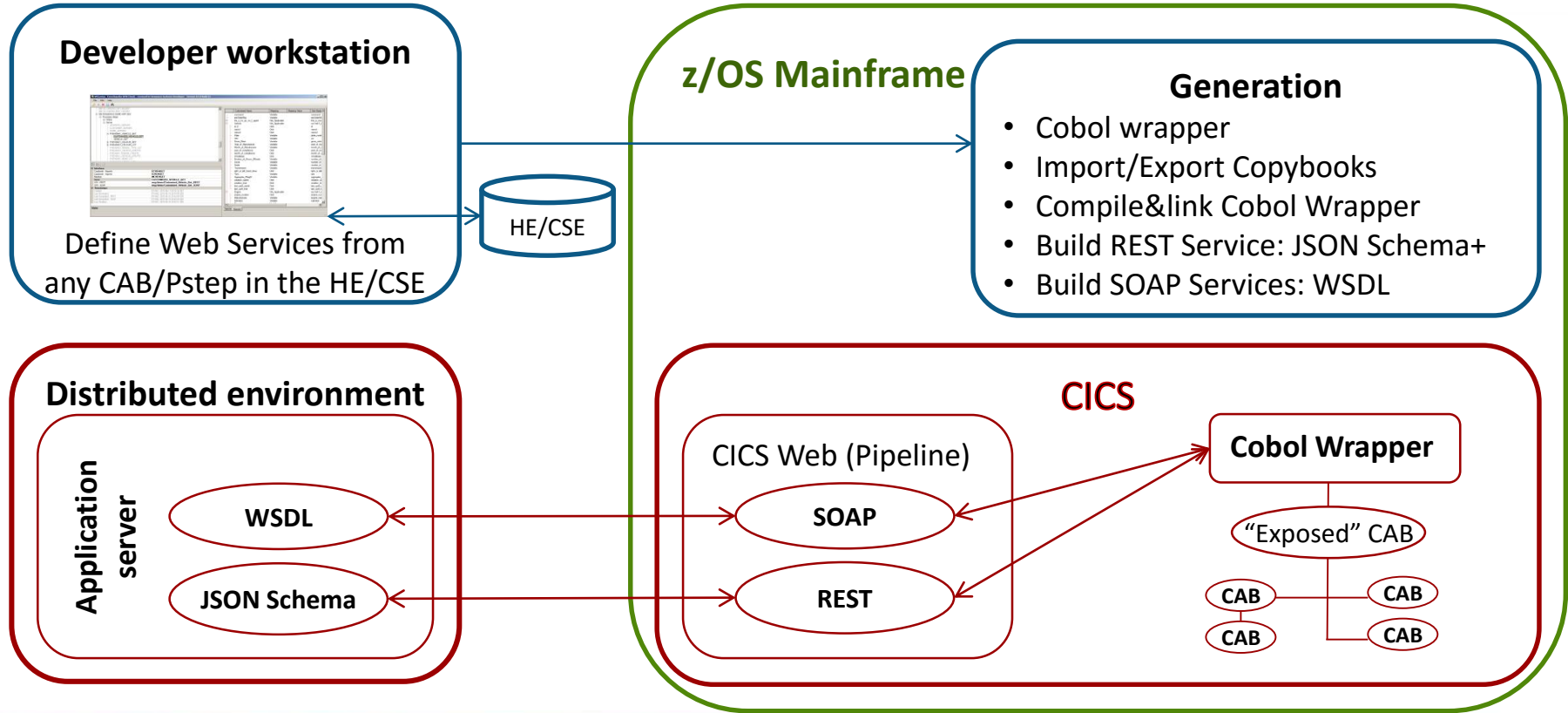


Microservices

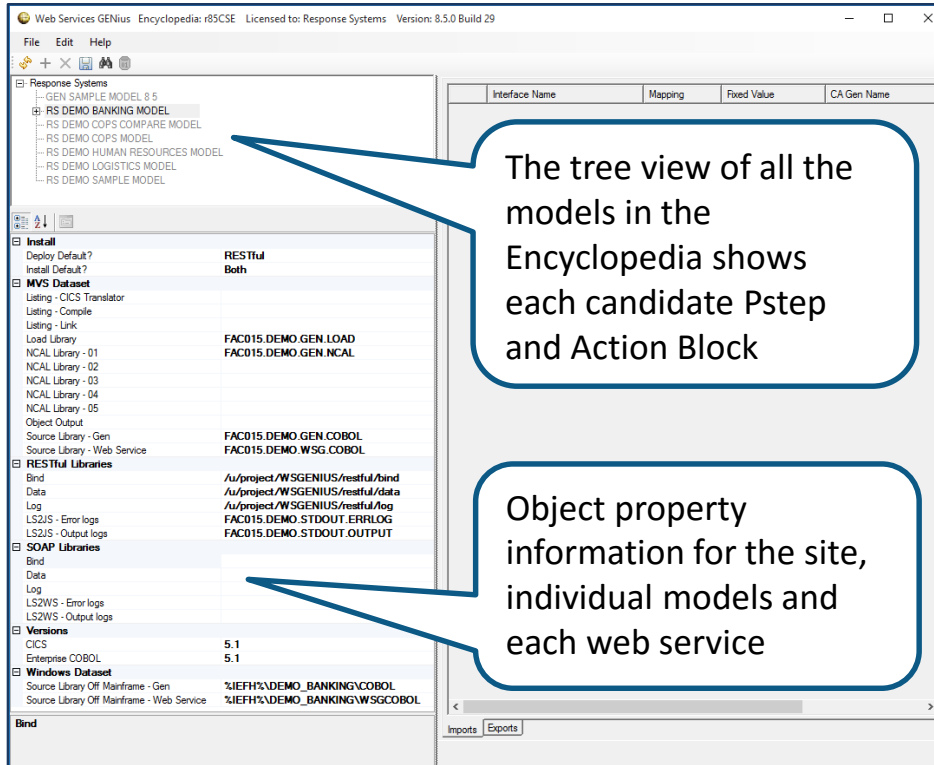
Emerging new architecture patterns

Monolithic application structures can be incrementally exposed as Web Services, rather than undergoing expensive “restructuring” and refactoring

Web Services GENius – Solution architecture



Configuring your site and models



A single windows client

- Simple clear layout
- Interacts with Encyclopedia
- Enables all configuration
- Where Web Services are defined

Tree nodes are hierarchical

- Root node for site-level config
- Model for model-specific config

Drag and drop to replicate

- Configurations can be dragged from one model to another model.

Creating Web Services



Web Services GENIUS Encyclopedia: r85CSE Licensed to: Response Systems Version: 8.5.0 Build 29

File Edit Help

Every part of the exposed Web service interface can be named in a way that makes sense for the Web Service consumer

Interface Name	Mapping	Fixed Value	CA Gen Name	Domain	Length
clientPassword	Omit		clientPassword	Text	64
clientId	Fixed	External_Public	clientId	Text	64
command	Omit		command	Text	80
dialect	Omit		dialect	Text	8
nextLocation	Omit		nextLocation	Text	80
imp_w_security_control	Not_Applicable		imp_w_security_control		
t_userid	Omit		t_userid	Text	8
t_password	Omit		t_password	Text	8
n_access_profile	Omit		n_access_profile	Numeric	3
t_spare_1	Omit		t_spare_1	Text	1
c_operational_unit	Omit		c_operational_unit	Numeric	5
t_spare_2	Omit		t_spare_2	Text	1
n_spare_2	Omit		n_spare_2	Numeric	1
t_access_profile_name	Omit		t_access_profile_name	Text	32
t_pass_ticket	Omit		t_pass_ticket	Text	20
c_organisation	Omit		c_organisation	Text	5
t_organisation_name	Omit		t_organisation_name	Text	50
i_super_access	Omit		i_super_access	Text	1
imp_a_organisation	Not_Applicable		imp_a_organisation		
[OrgCode]	Variable		c_organisation	Text	5

Each data item can be:

- **Omitted**
- Set with a **Fixed** value, or
- Passed through (**Variable**)

Web Service

Copybook - Exports ESORQ07
Copybook - Imports ISORQ07
Member WSORQ07
Name READ_ORGANISATION
URI - REST /Interface/REST
URI - SOAP

Name

Imports Exports

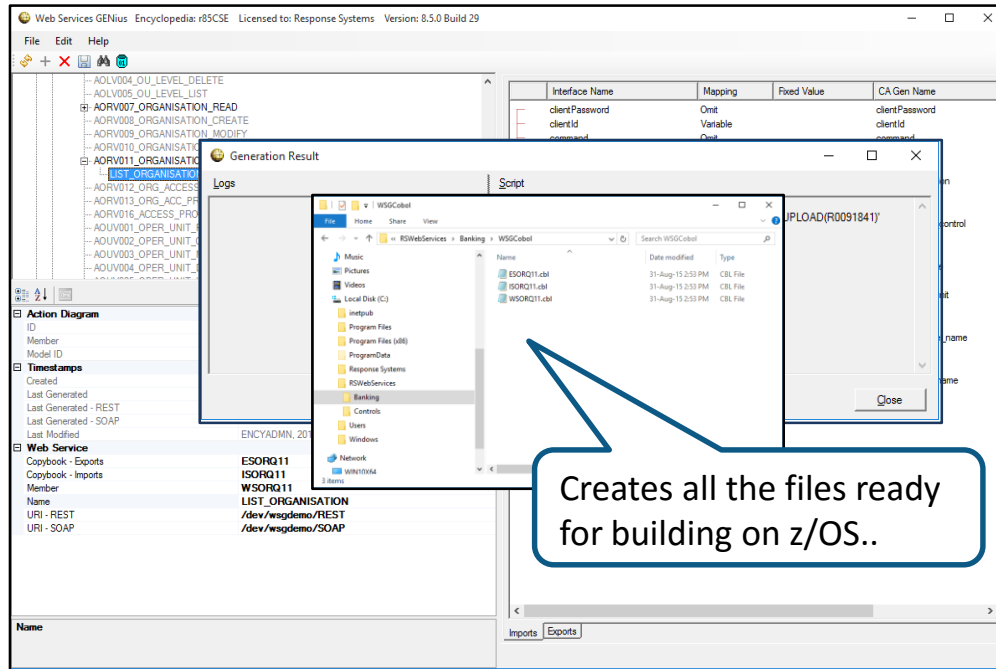
Web Service definitions

- On CABs or Psteps
- Multiple Web Services

Configured as required

- Named as needed
- Data exposed as necessary
- Hide or Fix any attribute.

Generating Web Services



Simple click-to-generate

- Generate single or multiple WS's
- Creates Cobol and control files
- Packaged as a discrete "Remote"

Build the generated RMT on z/OS

- Supplied batch job for Build, OR
- Supplied ISPF panel

Build deploys all artefacts

- JSON/WSDL created
- URI's operational and active.

Building Web Services



```
Web Services GENius - Black Box (for Remote CSE)
COMMAND ==>

The following fields are required:

RMT file      : FAC015.TEMPDATA(R5590908)
(Fully qualified with no quotes)

WSGENIUS LIST_VEH_MODEL_01 Member SVLSMDL9 compile RC=4.
WSGENIUS LIST_VEH_MODEL_01 Member SVLSMDL9 linked.
WSGENIUS LIST_VEH_MODEL_01 SOAP artefacts installed.
WSGENIUS LIST_VEH_MODEL_01 REST artefacts installed.
WSGENIUS LIST_VEH_MODEL_09 Member SVLSMDL9 compile RC=4.
WSGENIUS LIST_VEH_MODEL_09 Member SVLSMDL9 linked.
WSGENIUS LIST_VEH_MODEL_09 SOAP artefacts installed.
WSGENIUS LIST_VEH_MODEL_09 REST artefacts installed.
WSGENIUS WSGenius Install interfaces completed.
WSGGBRMT WSGenius completed (RC=0).
***
```

Specify the location of the uploaded Remote file

And see the build results for each Web Service

Build using supplied ISPF panel

- Takes the generated Remote file
- Builds all artefacts for use

Deploys all artefacts for use

- JSON and Bind files for RESTful APIs
- WSDL for SOAP Web Services
- Active on nominated URI's

Can be customised

- Every site is different
- Modular design for customisation
- Talk to us about what is needed.

Migrating Web Services between models



Web Services can be dragged and dropped between models

- Once defined, any Web Service can be replicated to another model with drag-n-drop
- Simple method removes the risk of incorrectly re-defining Web Services manually

The target model for the existing Web Service

- Must already contain the same action block
- The action block view structures should match
- The ancestry for that action block must be in place
- And the target model has been configured for Web Services

Promotion of Web Services is simple

- When the Web Service is ready to be migrated “up”, simply drag-n-drop
- Once migrated, the Web Service only needs to be Generated and Built.

Key benefits of Web Services GENius



Publish CICS Web Services directly from CA Gen mainframe applications

- New and unique capability to deploy SOAP or RESTful Web Services on Gen applications
- Create Web Services from any Pstep or CAB without change to the Gen applications

Web Services GENius simplifies your application delivery

- Exploits TCP/IP and IBM's CICS Web Services infrastructure
- No new layers of middleware or hardware – leverage what you've got
- Insulates developers from underlying technologies to accelerate Web Service delivery

No need for re-training development teams or new skill sets

- Seamless integration with CA Gen and IBM technologies
- Existing development teams can quickly deploy new Web Services.

More information



For further information

www.response-systems.com/solutions/genius
sales@response-systems.com

To discuss a demonstration or software evaluation in your environment

Tim Dargavel
tim.dargavel@response-systems.com
+61 417 009-311 (AU mobile)
+44 7798 523-857 (UK mobile)