Electricity Authority

Service Report and User Guide

December 2016

Prepared by Jade Operations

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Performance Standards

Measurement	Requirement	Actual	Met	Ref
Number and detail of service provider rule or agreement breaches and details	Report delivered to EA detailing breaches	0	Yes	
Disaster recovery and backup obligations as set out in section 5 of operational requirements			Yes	Section 5 Operational Requirements
Number and details of participant rule breaches	Report on 1st business day delivered to EA SFTP directory	04Jan17 at 02:46	Yes	
Maximum number of concurrent users for month		1707	Yes	
During regular service hours (0730 hours to 1930 hours each day), the provider must ensure that the system is available to participants for no less than 99.5 per cent of the time in any one month. This statistic considers that planned outages will not count against availability level targets. See 4.1 (f) and 4.3 of Operational Requirements. **NOTE;** **The actual percentage recorded is in accordance with the SPA.** **The outages recorded were planned outages as agreed with the Authority.**		100.00%	Yes	Operational Requirements 4.1 a
Outside regular service hours (between 1930 hours and 0730 hours) the provider must ensure that the system is available to participants for no less than 98.0 per cent of the time in any month. This statistic considers that planned outages will not count against availability level targets. See 4.1 (f) and 4.3 of Operational Requirements.		100.00%	Yes	Operational Requirements 4.1 b
The Registry must use its best endeavours to provide a service availability of 99.8 per cent or better, with nil or minimal outages. **NOTE;** **The actual percentage recorded is in accordance with the SPA.** **The outages recorded were planned outages as agreed with the Authority.**		100.00%	Yes	Operational Requirements 4.1 c

Measurement	Requirement	Actual	Met	Ref
There must be no more than four unplanned outages in any one month		0	Yes	Operational Requirements 4.1 d
There must be no more than two planned outages, undertaken only with prior approval from the Authority, per month. However, under the amendments clause 4.1(f) of the operational requirements allows the Authority to approve additional outages where necessary. Planned outages must be for no more than 2 hours' duration and must be undertaken outside regular service hours. Planned outages do not include necessary daily housekeeping and can be excluded from the calculation of availability. **NOTE;** **The actual number of outages recorded is in accordance with the SPA.** **The outages recorded were planned outages as agreed with the Authority.**		1) Scheduled outage 18 December for production application deploy.	Yes	Operational Requirements 4.1 e
The Registry must measure service response time at regular intervals (every 1–5 minutes as agreed between the Authority and the provider) during the regular service hours			Yes	Operational Requirements 4.2 a
Response time will be measured by the provider executing a representative sample of simulated transactions from another host system, external to the Registry ISP, on the production system. The types of transaction to be used and the frequency of sampling will be agreed with the Authority			Yes	Operational Requirements 4.2 b
Service response time will be measured from the point at which a user transaction is executed to the point at which a valid response is received at the point the transaction originated			Yes	Operational Requirements 4.2 c
Ninety-five per cent of all sampled transactions will have a response time of less than 2 seconds and 80 per cent will have a response time of less than 1 second for all the components managed by the system at the delineation point of the Registry network		<2 =99.84% <1 =99.66%	Yes	Operational Requirements 4.2 d
Help desk available	7:30 to 19:30 hours each business day	100%	Yes	Clause 11.20

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Measurement	Requirement	Actual	Met	Ref
Registry reports to participants day 1 09:00	09:00 hours on the first business day of the month	31Dec2016 21:03	Yes	Clause 11 of schedule 11.1
Issuing of confirmation notices within 4 hours of receipt of information provided			Yes	Clause 11.21
Number of customers changing retailers	16:00 on the 6th business day of the month		Yes	Clause 11.23
Such other information as may be agreed from time to time between the Registry and the Board [*3]	16:00 on the 6th business day of the month		Yes	Clause 11.23
Reports to the clearing manager and systems manager by 16:00 on first business day of the month	16:00 on first business day	04Jan2017 00:19	Yes	Clause 11.24
By 16:00 on 4th business day deliver to the reconciliation manager the ICP days report	16:00 on 4th business day	09Jan2017 02:25	Yes	Clause 11.26
By 16:00 on 4th business day deliver to the reconciliation manager the loss factors report	16:00 on 4th business day	05Jan2017 00:00	Yes	Clause 11.26
By 16:00 on 4th business day deliver to the reconciliation manager the balancing area report	16:00 on 4th business day	05Jan2017 00:00	Yes	Clause 11.26
By 16:00 on 4th business day deliver to the reconciliation manager the half hour identifiers report	16:00 on 4th business day	09Jan2017 05:30	Yes	Clause 11.26
By 16:00 on 1st business day deliver to the market administrator (EA) a report summarising event that have not been notified to the Registry with specified time frames	16:00 on 1st business day	04Jan2017 00:02	Yes	Clause 11.27
Copies of reports provided	Within 4 hours of request during business hours		Yes	Clause 11.28
Notifications or change within the Registry to participants affected	Same day		Yes	Clause 11.29
Registry to publish schedule of loss category code and loss factors	Within one day of notification of change		Yes	Clause 21 of schedule 11.1
Registry to publish schedule of mapping between NSP's and balancing areas	Within 1 business day of notification of change		Yes	Clause 24 of schedule 11.1
Registry to publish schedule of all NSP identifiers and supporting information	Within 3 business days of notification of change		Yes	Clause 30 of schedule 11.1

Adhoc Reporting Statistics

Report	Run	Complete	Average time (seconds)
Change Network Creation Date	1	1	0.2
Distributor Maintenance	843	843	15.3
Metering Maintenance	2721	2721	19.0
NSP Mapping Maintenance	31	31	8.3
Report - Breach Current	258	258	2.2
Report - Current Details	105	105	589.7
Report - Event Detail	23538	23538	110.2
Report - File Audits	2	2	1.0
Report - File Handler Status	8	8	0.3
Report - HHR ICP List	2	2	16320.5
Report - ICP Days	1	1	31551.4
Report - ICP List	3250	3250	208.8
Report - Loss Factor Codes	2	2	13.3
Report - Maintenance Breach	219	219	0.5
Report - Metering Installation Information	74	74	1985.5
Report - Missing Metering Data	5	5	487.8
Report - NSP Mappings	2	2	7.1
Report - Switch Breach History	144	144	49.9
Request - Switch Resend	83	83	0.3
Switch AC	585	585	0.5
Switch AN	8223	8223	0.7
Switch AW	1608	1608	2.7
Switch CS	9147	9147	3.9
Switch MN	402	402	2.0

Report	Run	Complete	Average time (seconds)
Switch NT	10589	10589	0.7
Switch NW	1893	1893	0.5
Switch RR	756	756	0.4
Trader Maintenance	1136	1136	16.7
Totals	65628	65628	56.3
Number of Reports successfully Re-Processed	09		

Batch File Statistics

Total	Complete	Completed by 07:30	Not completed by 07:30
63831	63831	63829	2

Details of Batch File Reports not completed by 07:30 Report	Event Detail Participant: ▇▇▇▇ Arrival: 01/12/2016 12:10:22 Start: 01/12/2016 12:10:32 End: 02/12/2016 08:33:30 Elapsed: 73378.3 seconds Processor: DFP2 Report - Event Detail Participant ▇▇ ▇ Arrival: 12/12/2016 10:30:21 Start: 12/12/2016 10:30:31 End: 13/12/2016 10:08:43 Elapsed: 85092.4 seconds Processor: DFP1

Other Information

The following reports/files are supplied to the EA by the 6th working day of each month (unless otherwise specified) to the SFTP server:

- ICP's energized, de-energized, decommissioned and switched by Retailer and NSP

- ICP's energized, de-energized, decommissioned and switched by Retailer

- ICP's energized, de-energized, decommissioned and switched by Distributor

- Report PR-130 as defined in functional specification

- Details of participant rule breaches (supplied on first business day)

- Details of participant switch breaches (supplied on first business day)

Summary of Incidents

There were no incidents.

Development Access

Jade Development staff have continuous access to the Production Electricity Registry System for support purposes.

Staff Member	Date accessed
Peter Smith	
Greg Matthews	05, 06, 20, 21
Pieter Bremmers	
Laura Jarquin	
Julian Brown	

Software Related Fixes

ID	Description	Response
ER-613	Adjust system reporting to initiate at 10:00 on 4th business day, this is to cater for issue ER-573 which moved ICPDays and HHRList reporting to start midnight on 4th business day, system reporting completed before these 2 reports had completed requiring manual search for completion time for sending to EA.	Patched in release 16.12 (18/12/2016)
ER-611	Administrator system monitoring dashboard received occasional not found errors as input files were processed faster than monitor screen could keep up, Install a shield from these (benign) errors.	Patched in release 16.12 (18/12/2016)
ER-608	Unable to get to supervisor menu. Issue was Registry Administrator had deleted a user logon that had been used as an "agent acting for another participant". This is a manually maintained index so the agent index now had an invalid reference. Amended to be an automatically maintained index	Patched in release 16.12 (18/12/2016)
ER-607	Report PR-210 submitted with no PRAM01 input line, this line is not necessary if all information is required (i.e. null equates to no search). If no parameter line submitted default search to all rather than reject file for missing parameter	Patched in release 16.12 (18/12/2016)
ER-599	Setup new public holiday dates out to 2020	Patched in release 16.12 (18/12/2016)

Data Fixes

Number and details of incidents requiring data fixes.

ID	Description	Severity	Response
ER-612	icp 0005028710RN5CD breach	Low	Breach timer removed

Schedule Of Faults Raised

A summary of faults raised during the month.

ID	Description	Severity	Response
ER-615	Duplicate notification (follow on from ER-593)	Low	Fixed
ER-614	Elongated address search (State Highway)	Low	Fixed
ER-613	Adjust SYS01 schedule report to run at 10:00	Low	Fixed
ER-612	icp 0005028710RN5CD breach	Low	Cannot Reproduce
ER-611	Shield admin app file handler monitor from error 4's	Low	Fixed

Server Disk Utilisation

MARAKLS3 (Production - MARPREG application)

Server	Drive	Content	Size (GB)	GB Available	Prior Period
MARAKLS3	C	Operating System	100	21	21
	R	JADE Database	1331	636	630
	U	JADE Journals (logs)	300	244	220
	V	Backup	1869	489	475

MARCHCS1 (DR-MARPREG secondary)

Server	Drive	Content	Size (GB)	GB Available	Prior Period
MARCHCS1	C	Operating System	136	69	69
	R	JADE Database	1166	474	470
	U	JADE Journals (logs)	300	257	235
	V	Backup	1748	1060	1057

MARCHCS3 (Test - MARUREG Primary Application, MARUREG secondary)

Server	Drive	Content	Size (GB)	GB Available	Prior Period
MARCHCS3	C	Operating System	158	69	69
	R	JADE Database	2012	1335	1329
	U	JADE Journals (logs)	400	361	360
	V	Backup	3014	951	940

Database Transactions Production
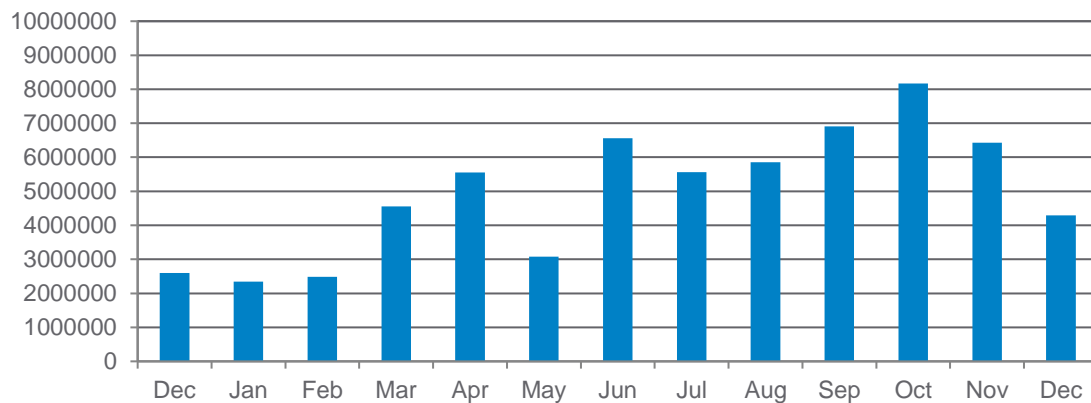
NOTE re October increase; ███ submitted a file containing 195485 ICP's, for each of those they wanted the audits between 01/01/2014-today (almost 3 years). Output file contained 177k entries.

Database Size Production (GB)
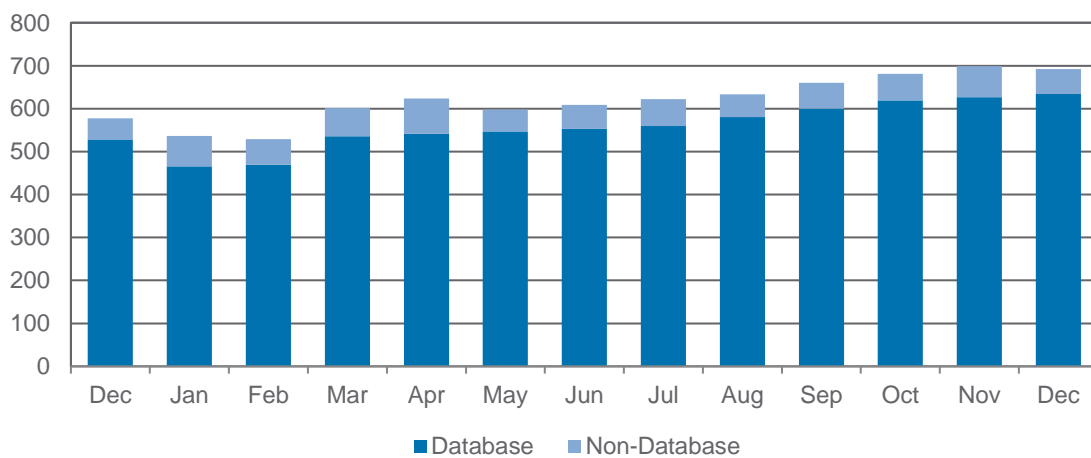
Service Disruptions

There were no recorded operational incidents during the period. Scheduled outages are excluded from the calculation of the Availability Percentage.

Performance Measure	
Availability	100.00%
Number of Scheduled Outages	1
Number of Unscheduled Outages	0
Last Unscheduled Outage	October 2016

Application Release Activities

Day	Detail	Duration hh/mm	Authoriser
18Dec16 21:00-21:29	Release 16.12 to Production	00:29	Grant Benvenuti

Other Activities

Day	Detail	Duration hh/mm	Authoriser

Managed Components

Name	Type
MARAKLS3	Production Database Server
MARCHCS1	DR Database Server Secondary
MARCHCS3	Test Database Server
CNWAKLS205	Web Server
MARPREG	Production System
MARUREG	UAT System

Transaction Volumes

Transaction name	This Month	Last Month	Percentage Change
All Transactions	4,293,077	8,172,410	-47%

Database Growth

Class	This Month MB	Last Month MB	Change MB
Database	649,637	641,977	7,660
Non-database	59,410	74,054	-14,644
Total	**709,047**	**716,031**	**-6,984**

Backup Performance Production

Backup Type	Run days	Run Time	Expected Duration hh/mm	Tape Restore Test Date
Disk	ALL	20:00	01:45	13Dec16
Tape	ALL	01:00	05:00	

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Electricity Authority Contact Information

The customer operations contacts are for Jade Care personnel to contact the Electricity Authority staff for day-to-day procedures or any unexpected events.

Contact Name / Role	Contact Details
Manager Market Operations	Grant Benvenuti P: 04 460 8849 M: 027 652 4854 E: grant.benvenuti@ea.govt.nz

Jade Care Contact Information

Role	Contact Details

Central Systems
 	
Central Systems is the single point of contact for Jade Care. Central Systems will co-ordinate the involvement of the necessary staff from elsewhere in the Jade organisation.
	E: csystems@jadeworld.com
	
	P: 0800 65 22 66 or
	      +64 3 365 22 66 or
	      +64 21 225 8122
	
	A: Jade Software Corporation
	      21 Sheffield Crescent
	      P.O. Box 20159
	      Christchurch, New Zealand

Client Services Manager The Client Services Manager provides a more formal channel of communications between the two organisations. The Client Services Manager is responsible for scheduling non-routine activities with the customer, acts as the primary point of fault escalation and also produces the monthly reporting.	David Burt E: dburt@jadeworld.com P: 03 367 8337 – Office 021 225 8137 – Mobile
Business Manager The Business Manager takes overall responsibility for the customer relationship with Jade.	Ana Sever E: asever@jadeworld.com P: +64 9 600 6322 or +64 21 446 684

Automated Fault Escalation Profiles – Priority A Incidents

In the event of a "priority A incident" where the hardware or the application has an unscheduled outage the Electricity Authority has advised that escalation via email or text is not required.

However, if there is an unusually long outage impacting participants, then Grant Benvenuti would like to be contacted.

Agreed Procedures

Change Control

All significant changes will be notified to the Electricity Authority, and a Tracker work request will be created to record authorisation, schedule, and implementation detail.

Change requests must be approved within 1 month of the request being submitted.

In exceptional circumstances, for example where Jade Care consider server integrity to be under significant and immediate threat, changes may be applied with little or no notice.

Application Release Authorisation

Releases are automated through the Jade Care toolset. Submission and authorisation are separate functions, and the authorisation facility may be extended to the Electricity Authority, or may be applied by the Client Service Manager where the Electricity Authority chooses not to use this facility.

Application Restarts

Requests for restart of applications or servers must be made in writing. In exceptional circumstances, and where the requestor is known to Jade Care staff, a verbal request may be sufficient, provided it is confirmed in writing shortly after the request is made.

Hardware Fault Reporting

SNMP traps will be enabled for all servers. Traps will result in alerts being raised at Jade Care and Tracker incident records being created. Automated escalation can be applied to these calls to alert the Electricity Authority and third parties to the event.

Arrangements may be put in place to allow Jade Care to contact hardware service organisations directly in the event of hardware issues. Contact and call identification details will be required as a prerequisite to implementation.

Anti-Virus Product

Anti-virus product is installed on all managed servers. Engine and pattern updates are applied on receipt, and full scans are run weekly.

Recovery Procedures

Application Recovery

The environments are set up to perform automatic application recovery in the event of a server undergoing a non-scheduled restart.

If there is a physical failure on the hardware where the VM is hosted on, the VM will be moved to a different physical VMware host. In the event of a catastrophic site failure, an SDS takeover will occur to the DR site upon approval by the Electricity Authority.

Server Recovery

Server recovery should never take place unless agreed by the Electricity Authority, Jade Care and hardware service representatives.

If a server operating system needs to be rebuilt, Central Systems will assist the onsite technician in rebuilding the server configuration and operating system to a state where Jade Care access is restored. Recovery of the full configuration, the applications and other third party software will be undertaken by Jade Care.

Server Integrity

The Electricity Authority servers are configured and maintained to Jade Care standards. This configuration is critical to the operation of the process automation and monitoring software.

It is essential that all changes to the server or application software is either performed by, or with the fore-knowledge and agreement, of Jade Care.

Reporting

Systems Management Report

This systems management report is to be provided by email to customer staff as advised from time to time. The target date for delivery is the 5th working day of the month following the calendar month to which the report relates.

Incident Reports

An incident report will be prepared for each unscheduled outage and will be emailed to customer staff as advised from time to time within 3 working days of any outage. These reports relate only to those items managed by Jade Care; e.g. network issues and hardware failures will not be subject to a report.

Jade Care Recommendations

Where Jade Care has recommendations for changes to hardware or the operating environment, these recommendations will be submitted to the Electricity Authority management. Implementation of such recommendations will be formalised through the change control process, and documented through the systems management report in summary form.

Software Licences and Media Storage

All software media and licences must be kept in secured storage in reasonable proximity to the servers.

Replication Technologies

The use of replication technologies such as Volume Shadow Copy Service (VSS) and VMware copy processes with JADE databases is NOT supported and must not be used. The Jade Care service provides automated scheduled backups.

Personnel and Contact Details

The Electricity Authority must advise Jade Care of changes in personnel and contacts details where individuals are named as direct contacts. Fault escalations are pre-defined and automated to individual email addresses and SMS capable devices. Leave coverage and personnel changes must be advised for these functions to be effective.