



Electricity Authority

Service Report and User Guide
October 2016

Prepared by Jade Operations



| business solutions

www.jadeworld.com

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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 1 st business day delivered to EA SFTP directory	01Nov16 at 03:19	Yes	
Maximum number of concurrent users for month		1787	Yes	
<p>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.</p> <p>NOTE;</p> <p>The actual percentage recorded is in accordance with the SPA.</p> <p>The outages recorded were planned outages as agreed with the Authority.</p>		99.96%	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
<p>The Registry must use its best endeavours to provide a service availability of 99.8 per cent or better, with nil or minimal outages.</p> <p>NOTE;</p> <p>The actual percentage recorded is in accordance with the SPA.</p> <p>The outages recorded were planned outages as agreed with the Authority.</p>		99.98%	Yes	Operational Requirements 4.1 c

Measurement	Requirement	Actual	Met	Ref
There must be no more than four unplanned outages in any one month		1	Yes	Operational Requirements 4.1 d
<p>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.</p> <p>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.</p> <p>NOTE;</p> <p>The actual number of outages recorded is in accordance with the SPA.</p> <p>The outages recorded were planned outages as agreed with the Authority.</p>		1) Scheduled outage 23 October 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		<p><2 =99.81%</p> <p><1 =99.60%</p>	Yes	Operational Requirements 4.2 d
Help desk available	7:30 to 19:30 hours each business day	100%	Yes	Clause 11.20

Measurement	Requirement	Actual	Met	Ref
Registry reports to participants day 1 09:00	09:00 hours on the first business day of the month	31Oct2016 20:53	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 6 th 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 6 th 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	01Nov2016 00:16	Yes	Clause 11.24
By 16:00 on 4 th business day deliver to the reconciliation manager the ICP days report	16:00 on 4 th business day	04Nov2016 00:00	Yes	Clause 11.26
By 16:00 on 4 th business day deliver to the reconciliation manager the loss factors report	16:00 on 4 th business day	02Nov2016 00:00	Yes	Clause 11.26
By 16:00 on 4 th business day deliver to the reconciliation manager the balancing area report	16:00 on 4 th business day	02Nov2016 00:00	Yes	Clause 11.26
By 16:00 on 4 th business day deliver to the reconciliation manager the half hour identifiers report	16:00 on 4 th business day	04Nov2016 00:00	Yes	Clause 11.26
By 16:00 on 1 st 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 1 st business day	01Nov2016 00:01	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	1.9
Distributor Maintenance	1028	1028	27.4
Metering Maintenance	2932	2932	8.7
NSP Mapping Maintenance	26	26	7.4
Report - Breach Current	245	245	2.2
Report - Current Details	154	154	427.6
Report - Event Detail	24730	24730	91.3
Report - File Audits	2	2	132.5
Report - File Handler Status	3	3	0.3
Report - ICP List	3200	3200	203.9
Report - Loss Factor Codes	3	3	13.0
Report - Maintenance Breach	197	197	0.4
Report - Metering Installation Information	57	57	1962.7
Report - Missing Metering Data	12	12	457.0
Report - NSP Mappings	5	5	6.6
Report - Switch Breach History	159	159	41.7
Request - Switch Resend	93	93	0.3
Switch AC	623	623	0.5
Switch AN	8165	8165	10.9
Switch AW	1673	1673	2.6
Switch CS	8960	8960	4.1
Switch MN	310	310	2.9
Switch NT	11243	11243	0.7
Switch NW	1795	1795	0.5

Report	Run	Complete	Average time (seconds)
Switch RR	935	935	0.4
Trader Maintenance	982	982	21.9
Totals	67533	67533	49.1
Number of Reports successfully Re-Processed	3		

Batch File Statistics

Total	Complete	Completed by 07:30	Not completed by 07:30
65938	65938	65935	3

Details of Batch File Reports not completed by 07:30 Report	<p>Event Detail Participant: [REDACTED] Arrival: 12/10/2016 11:03:19 Start: 12/10/2016 11:03:28 End: 13/10/2016 09:11:42 Elapsed: 79693.8 seconds Processor: DFP8</p> <p>Report - Event Detail Participant: [REDACTED] Arrival: 31/10/2016 10:46:13 Start: 31/10/2016 10:46:30 End: 01/11/2016 09:36:27 Elapsed: 82196.9 seconds Processor: DFP4 Switch AN Participant: [REDACTED] Arrival: 17/10/2016 09:25:23 Start: 17/10/2016 09:25:26 End: 18/10/2016 08:20:31 Elapsed: 82504.9 seconds Processor: SFP0</p>
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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 was an incident on 06th October where the Web server stopped servicing the Electricity Authority website. The outage to users was from 09:39 – 09:59. The generated memory dump was not conclusive with respect to identifying the cause of the issue. The memory dump settings have now been changed in order to obtain more information if this unlikely scenario occurs again.

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	06, 11, 17, 19, 20, 21, 31
Pieter Bremmers	
Laura Jarquin	
Julian Brown	

Software Related Fixes

ID	Description	Response
ER-589	Loss factor maintenance screen allowing code start date that are pre-registry (prior 01/04/1999)	Patched in release 16.10 (23/10/2016)
ER-588	Registry engineer is being cc'd on participant RSPALERT reports. This is unnecessary and may obscure real issues	Patched in release 16.10 (23/10/2016)
ER-586	Report PR-120 default setting is report not available to MEPs. Setting changed (on-line). Static data initialization method changed so PR-120 is available to MEP's as a default	Patched in release 16.10 (23/10/2016)
ER-585	PR-120 functional spec missing a file example under data inputs (documentation change only)	Patched in release 16.10 (23/10/2016)
Enhancements		
CR-1187 Missing MEP ownership Historical Insertion		
This change request will provide the Registry with the ability to:		
<ul style="list-style-type: none"> - Add Trader events on behalf of the Trader responsible for the ICP; in order to correct MEP ownership in a trader event that is not the latest - Create MEP acceptance of nomination on behalf of a MEP - Insert Metering events on behalf of a MEP 		
Documentation Updates		
Functional Specification v22.19		

Data Fixes

Number and details of incidents requiring data fixes.

ID	Description	Severity	Response
ER-592	Notification for status event reversed by switch completion	Medium	Missing notifications created in production 21 October
ER-591	ICPDAYS report not showing correct data	Critical	Consumption periods rebuilt 20 October and reports rerun
ER-589	Loss factor start date allowing pre-registry dates	Low	LF code effective dates updated 18 October
ER-583	Address search query	Low	Address collection updated 11 October

Schedule Of Faults Raised

A summary of faults raised during the month.

ID	Description	Severity	Response
ER-596	Implement "file in use error" retries	Medium	Unresolved
ER-595	CR-1187; Email attachment error	Low	Fixed
ER-594	CR-1187 additional Trader notification generated	Low	Fixed
ER-593	Identify unsent notifications resulting from ER-572	Low	Unresolved
ER-592	Notification for status event reversed by switch completion	Medium	Fixed
ER-591	ICPDAYS report not showing correct data	Critical	Unresolved
ER-590	PR-110 Breach maintenance report showing incorrect data	Low	Unresolved
ER-589	Loss factor start date allowing pre-registry dates	Low	Fixed
ER-588	Registry Engineer is being cc'd for RSPALERT reports	Low	Fixed
ER-587	Invalid reconciliation records	High	Fixed
ER-586	PR-120 not available for MEPs	Low	Fixed
ER-585	PR-120report request via FTP - update FC	Low	Fixed
ER-584	streetOrPropertyFilter	Low	Done
ER-583	Address search query	Low	Done

Server Disk Utilisation

MARAKLS3 (Production - MARPREG application)

Server	Drive	Content	Size (GB)	GB Available	Prior Period
MARAKLS3	C	Operating System	100	21	22
	R	JADE Database	1331	649	674
	U	JADE Journals (logs)	300	239	220
	V	Backup	1869	519	1213

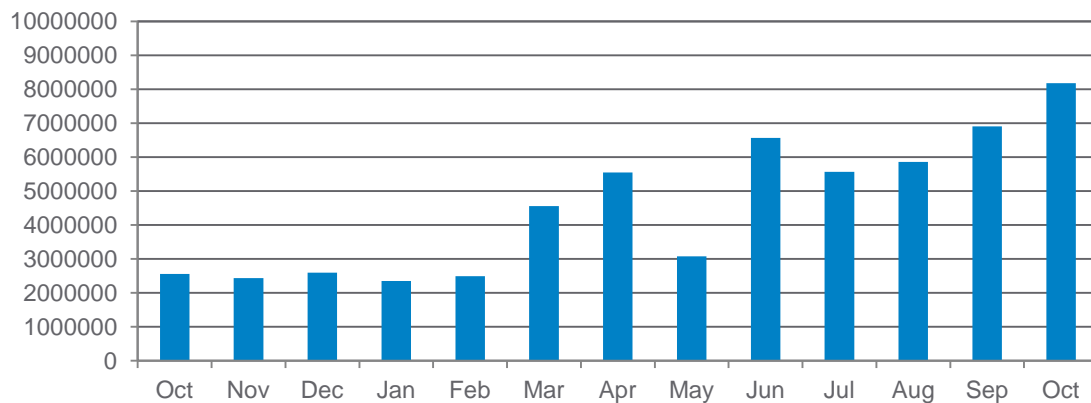
MARCHCS1 (DR-MARPREG secondary)

Server	Drive	Content	Size (GB)	GB Available	Prior Period
MARCHCS1	C	Operating System	136	69	70
	R	JADE Database	1166	493	515
	U	JADE Journals (logs)	300	234	59
	V	Backup	1748	1076	1100

MARCHCS3 (Test - MARUREG Primary Application, MARUREG secondary)

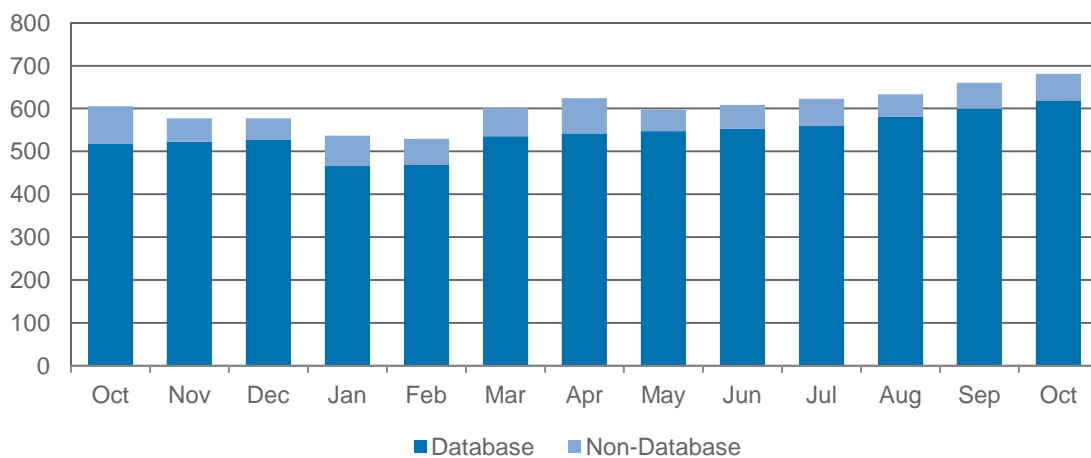
Server	Drive	Content	Size (GB)	GB Available	Prior Period
MARCHCS3	C	Operating System	158	68	70
	R	JADE Database	2012	1353	1430
	U	JADE Journals (logs)	400	360	355
	V	Backup	3014	1067	1264

Database Transactions Production



NOTE re October increase; [REDACTED] 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	99.96%
Number of Scheduled Outages	1
Number of Unscheduled Outages	1
Last Unscheduled Outage	October 2016

Application Release Activities

Day	Detail	Duration hh/mm	Authoriser
23Oct16 21:00-21:39	Release 16.10 to Production	00:39	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	8,172,410	5,851,784	40%

Note regarding the 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 Growth

Class	This Month MB	Last Month MB	Change MB
Database	633,816	594,718	39,098
Non-database	63,229	54,041	9,188
Total	697,045	648,759	48,286

Backup Performance Production

Backup Type	Run days	Run Time	Expected Duration hh/mm	Tape Restore Test Date
Disk	ALL	20:00	01:45	17Oct16
Tape	ALL	01:00	05:00	

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.