# DE15007 - DES Data Center Relocation - Compute Implementation
## Department of Economic Security (DES)

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|---|---|---|---|---|---|
| PIJ ID: | DE15007 | Project Start Date: | 5/5/2015 | Project End Date: | 4/1/2016 |
| Agency Contact: | Kim Hartleroad | Phone: | 602-774-8848 | Email: | khartleroad@azdes.gov |
| Project Manager: | Robert Mayer | Phone: | 602-771-2195 | Email: | Rmayer@azdes.gov |

## Project Change Request (Amendment)

| | | | |
|---|---|---|---|
| Date Submitted: | 11/16/2015 | Prepared by: | Robert Mayer |

Affected Areas: (Check all that apply) Project End Date ☑ Development Cost ☑ Project Scope ☐

NOTE: The appropriate revised pages from the Project Investment Justification (PIJ) document MUST accompany this form.

| Currently Recorded Dates/Costs | | | | Requested Revisions To Dates/Costs | | | |
|---|---|---|---|---|---|---|---|
| Start Date | End Date | Development Cost | Total Cost | Start Date | End Date | Development Cost | Total Cost |
| 05/05/15 | 04/01/16 | $ 5,112,138 | $ 7,619,823 | | 06/30/16 | $9,134,817 | $ 11,198,817 |

### Change Description (AS IS - TO BE)

This is a request to change the end date, scope and cost of DE15007. A summary of the proposed increases to costs along with new dates is as follows:

| | AS IS | New Total | Increase Amount (dev) |
|---|---|---|---|
| Hardware | $2,550,477 | $3,362,560 | +$812,084 |
| License & Maintenance Fees: | $0.00 | $181,274 | +$181,274 |
| Prof & Outside Services: | $2,037,801 | $3,756,766 | +$1,718,965 |
| Software: | $523,859.00 | $1,426,054 | +$902,195 |
| Other (Contingency funds used to pay for needed Items required for development ) | $0.00 | | |
| | $0.00 | $408,163 | $408,163 |
| Totals | $5,112,137 | $9,134,817 | +$4,022,680 |

That total current cost of the Data Center Relocation is at $8,077,321 . That total includes the Project Financials from PIJ 1, DE15001 of $500,000, PIJ 2, DE15003 of $2,465,183 and PIJ 3 DE15007 of $5,112,138. DES is now asking for an increase to PIJ DE15007 of $4,022,680. This brings the total budget for the project to $12,100,000.

| **Milestones (AS IS)** (Dates not relevant with approval of CR) | Estimated Start | Actual Start | Estimated Finish | Actual Finish | % Complete |
|---|---|---|---|---|---|
| T001 Acquire, install, perform initial configuration of UCS servers | 06/12/15 | 05/05/15 | 07/07/15 | | 50% |
| T002 Acquire, install, perform initial configuration of NetApp storage | 06/12/15 | 05/06/15 | 07/07/15 | | 50% |
| T003 Configure and validate virtual server environment (VMware) | 07/07/15 | | 07/27/15 | | |
| T004 Test & validate network, UCS and VMware environments | 07/27/15 | | 08/07/15 | | |
| T005 Distributed replication enabled | 08/08/15 | | 08/08/15 | | |
| T006 Exchange physical relocation | 09/11/15 | | 09/11/15 | | |
| T007 IBM Mainframe failover testing | 09/11/15 | | 12/05/15 | | |
| T008 New I/O space ready for Mainframe move | 08/08/15 | | 07/14/15 | | |
| T009 IBM Contract and Services | 01/18/16 | | 01/18/16 | | |
| T010 Uninstall, relocate, install, and validate IBM Mainframe and peripherals | 03/19/16 | | 03/19/16 | | |
| T011 Application migrations | 08/10/15 | | 03/19/16 | | |
| T012 Project closure and decommission | 08/11/15 | | 04/01/16 | | |

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**Milestones TO BE** (Note: The work of AS IS Milestones T001 and T002 is included in milestone T001 of the CR). Some Playbook milestones are performed in parallel with Relocation Services events.

| | Estimated Start | Actual Start | Estimated Finish | Actual Finish | % Complete |
|---|---|---|---|---|---|
| T001 Migration: Equipment Relocation Services Milestone One | 10/02/15 | 10/2/15 | 10/30/15 | | |
| T002 Migration: Equipment Relocation Services Milestone Two | 01/01/16 | | 01/31/15 | | |
| T003 Migration: Equipment Relocation Services Milestone Three | 02/01/16 | | 03/27/16 | | |
| T004 Migration: Equipment Relocation Services Milestone Four | 06/3/16 | | 06/30/16 | | |
| T005 Migration: Migration Playbook (CenturyLink Project documents) Milestone One | 08/19/15 | 08/19/15 | 10/22/15 | | 64 |
| T006 Migration: Migration Playbook Milestone Two | 08/19/15 | 08/19/15 | 10/30/15 | | 32 |
| T007 Migration: Migration Playbook Milestone Three | 09/10/15 | 09/10/15 | 11/19/15 | | 2 |
| T008 Migration: Data Center Relocation Transition Services T&M* | 12/9/15 | | 06/30/16 | | |
| (* This milestones migration of Virtual servers to the new Data Center) | | | | | |

## Business Justification Summary

The DCR project budget was originally conceived at the end of 2013. After further refinement it was broken into a planning phase, networking phase, and migration phase.

The first phase is complete on PIJ DE15001. The second phase scope is complete as it relates to the networking infrastructure needed to support the migration. The second phase PIJ15003 will close once the final payments are made on some outstanding POs. This should happen within a month or so. The last phase under PIJ15007 is currently underway and projected to go over budget. This is primarily due to expenditures relating to Professional Services (Gartner, CenturyLink), hardware (Virtual Tape Library), and software licensing. As the number of individual line items have changed, the scope has not. Now that we have progressed along the plan and elaborated on the details we feel we have documented the remaining money needed to finish the project. Gartner as our IV&V has also shown favorable reviews on our current approach. The target end date of the project is June 30th of 2016. The additional funding needed to finish the project is available within DES due to our ability to leverage federal funding because of waivers of depreciation we have been given. No additional funding is being requested at this time from outside of DES.Summary of changes is listed below.

The plus sign (+) by any listed item shows what was added that was necessary for the data center migration but was not originally listed in the DE15007 PIJ or came in higher than earlier estimated. A minus sign (-) shows an item that was in the original PIJ but is deemed not necessary for the project due to a deeper discovery effort on the part of the new project manager.

**Hardware**
+Citrix Netscaler Equipment
+Cisco Switches
+Cisco UCS (CPU)
+NetApp (hard drive storage)
+EMC VTL (Virtual Tape Library)
License & Maint Fees
-VMware
+EMC (License and maintenance for the Virtual Tape Library)

**Prof & Outside Services**
+Gartner - 3rd party review
+CenturyLink
-VMware
-cStor (flex pod related duties)
-Did not purchase Business and Decisions

**Software**
+VMware
+TIBCO Mainframe file transfer control center and internet gateway
+McAfee software/support

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**List Known Dependencies/Risks/Constraints**

Target state compute and storage design and build is being performed by two 3rd parties.

JPMorgan and Production Exchange will be live at the PH1 Data Center site while the network build continues until November 20th, 2015.
DES has experienced considerable personnel losses, placing schedule and steady state operations at risk.
Design and order is required to proceed with mainframe colocation build. We must first design a space that we could then order from CenturyLink. The risk is if we do not have an approved design we cannot make the order, and we are not by the contract guaranteed space at IO. The longer it takes to get the mainframe space under contract the more risky the project becomes.
The 1720 Data Center has multiple single points of failure. If any one of these were to occur there is no guarantee that operations can continue. Catastrophic loss of data and uptime is likely.

The Data Center Relocation Project (DCR) will be considered a success when all production applications have been successfully migrated to the new data center such that, should all contact with the current data center located at 1720 Madison, Phoenix data center be lost, all DES business operations would continue uninterrupted. All remaining equipment or connectivity assumed not required to support DES business operations is out of scope for the DCR project and will be reconciled in a subsequent project focused on addressing the 1720 facility clean up.

| Submitted by (Printed Name ) | Chief Information Officer (Printed Name & Signature) |
|---|---|
| Robert Mayer | Stephen Welsh |

Attach CIO signature for Cost changes. Email from CIO acceptable for other changes. Complete all information above this line.

| (For ASET Use Only) | | | |
|---|---|---|---|
| Reviewed by: | | Review Date: | |
| Approved by: | | Approved Date: | |
| Comments: | | | |