IT Project Status — 1 July 2014

# Report to the Administration & Finance Committee of the ARRL Board of Directors

The status of the IT projects identified in the ARRL 2014-2015 Plan is summarized in Table 1 (below).

During 2nd Quarter 2014, software development efforts were directed towards those projects identified in the ARRL 2014-2015 Plan as being of highest priority, specifically:

1. *Centennial Operating Event (Centennial QSO Part & W1AW Portable Worked All States Award)*

This is a holdover project from the 2013-2014 Plan. Progress towards completion of this project is currently awaiting receipt of detailed specifications from MVP.

1. *AIS Wholesale Publications Module*

Completed coding and system test. Began acceptance testing with internal customer.

1. *AIS Membership & Subscriptions Module*

Continue conceptual design and requirements collection from stakeholders

1. *Replacement for DXCC system*

Held preliminary design review. Began detailed design, coding and unit test.

Effective May 5th, two (2) new Principal Software Engineers joined the IT staff: Doug Haney and Sean Wall. Doug and Sean are working on Logbook of the World; and with their addition the rate of progress on LoTW-related projects began to increase dramatically in the second half of the quarter.

In the infrastructure (hardware) area, the following projects are under way:

1. Improving responsiveness of the ARRL web site through the deployment of a high-performance database server. The server is presently being tested. Progress in the test and integration of the new web server with the HQ “back end” data system (AIS) has been limited by availability of developer support. Both developers who would be to assist with test and integration are also assigned to other projects designated High priority.
2. The upgrade of the networking infrastructure within ARRL HQ continues. Work has been scheduled to minimize disruption of HQ operations and provision of member services. The next (and last planned) network disruption associated with this project is tentatively scheduled for the weekend of August 1-2.
3. Severs and ancillary hardware necessary to deploy a duplicate of the Logbook of the World system to an off-site location have been received. The newly LoTW developers are in the process of installing Logbook software and testing prior to sending system to co-lo facility.

Once again, it should be noted that the 2014-15 ARRL Plan has the effect of committing all available web development resources to work on projects that are identified in the Plan as being of High priority. This obviously affects the ability to make progress on those projects that the Plan did not place into that priority category or to contemplate undertaking new initiatives during the remainder of the Plan period.

This situation is entirely a consequence of the substantial “technical debt” that has accumulated over the years and is represented by the legacy systems (Siebel, DXCC) each of which is long overdue for replacement. Given a fixed set of resources, the choice to not delay repaying this debt any longer but rather to identify as high priority the large development projects necessary for replacing these legacy systems necessarily limits the capacity to move forward with lower priority projects in a timely fashion. But, as has been stated previously in this context: *When you find yourself stuck deep in a hole, the first thing to do is to stop digging*.

Looking forward, the need to commit similar levels of resources (or to find additional resources) can be anticipated in the near future to address the web site which has represented a major source of technical debt since its acquisition.

Table 1 — IT Project Status (1 July 2014)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Priority** | **Project** | **Phase** | **Status** | |
| **Complete** | **ETC — Effort**  **(person-months)** |
| High (2013) | Centennial Operating Event | Transition | 85% | 1 |
| High | AIS Membership — Web membership application/renewal | Inception | 5% | 3 |
| High | AIS Membership — Automatic renewal of membership | Inception | 5% | 3 |
| High | AIS Membership — Account management | Inception | 5% | 12 |
| High | AIS Wholesale Publications Sales & Fulfillment Module | Construction | 90% | 0.5 |
| High | Replacement for DXCC (“ATS”) system | Construction | 10% | 10 |
| High | Improve ARRL web site performance | Construction | 90% | 0.5 |
| High (2013) | AIS Affiliated Club Module | Construction | 70% | 1 |
| Medium | LoTW — Code maintenance and upgrade SAP MaxDB database | Construction | 50% | 2 |
| Medium | LoTW — Instrument, monitor and tune database performance | Elaboration | 10% | 3 |
| Medium | LoTW —Establish a Logbook of the World co-location site. | Construction | 50% | 1 |
| Medium | LoTW —Add ARRL 5-Band awards (DXCC & WAS) | Inception | 0% | 1 |
| Medium | Add CQ WAZ award | Inception | 0% | 1 |
| Medium | ARRL HQ LAN upgrade. | Construction | 85% | 0.5 |
| Medium | Upgrade ARRL web site software components | Elaboration | 10% | 3 |
| Medium | Improve tools for ARRL electronic newsletters | Inception | 0% | *TDB* |
| Medium | Authentication web service for exam generation | Inception | 0% | *TDB* |
| Low | Upgrade HW desktop systems to MS Office 2013 / Office 365 | Inception | 10% | 1 |
| Low | “Contest 2020” Phase 1 | Construction | 70% | 1 |
| Low | “Contest 2020” Phase 2 | Inception | 0% | *TDB* |

**Figure 1 Software System Design Process**



Table 2 —Resource Allocation to IT Projects

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Priority** | **Project** | **Phase** | **Resource Allocation** | | | | | |
| **PM** | **CM** | **Req** | **Des** | **Code** | **QA** |
| High (2013) | Centennial Operating Event | Transition | ITM | DEV2 | ITM | ITM  DEV2 | ITM  DEV2 | ITM  DEV2 |
| High | AIS Membership — Web membership application/renewal | Inception | ITM  DEV1 | DEV1 | DEV1 | DEV1  DEV2  DBA | DEV1  DEV2 | DEV1  DEV2 |
| High | AIS Membership — Automatic renewal of membership | Inception | ITM  DEV1 | DEV1 | DEV1 | DEV1  DEV2  DBA | DEV1  DEV2 | DEV1  DEV2 |
| High | AIS Membership — Account management | Inception | ITM  DEV1 | DEV1 | DEV1 | DEV1 DEV2  DBA | DEV1  DEV2 | DEV1  DEV2 |
| High | AIS Wholesale Publications Sales & Fulfillment Module | Construction | DEV1 | DEV1 | DEV1 | DEV1  DEV2 | DEV1  DEV2 | DEV1  DEV2 |
| High | Replacement for DXCC (“ATS”) system | Elaboration | ITM | DEV2 | ITM  DEV2 | DEV2 | DEV2 | DEV2 |
| High | Improve ARRL web site performance | Construction | NM | NM | NM | NM | NM | NM |
| High | AIS Affiliated Clubs Module | Construction | DEV1 | DEV1 | DEV1 | DEV1 | DEV1 | DEV1 |
| Medium | LoTW — Code maintenance and upgrade of SAP MaxDB | Elaboration | ITM | LOTW1 | ITM | LOTW1  LOTW2 | LOTW1  LOTW2 | LOTW1 |
| Medium | LoTW — Instrument, monitor and tune database | Inception | ITM | LOTW | LOTW | LOTW | LOTW | LOTW |
| Medium | LoTW —Establish a Logbook of the World co-location site. | Construction | ITM | NM  LOTW1 | ITM | ITM  NM | OM  NM  LOTW1 | ITM  NM  LOTW1 |
| Medium | LoTW Add ARRL 5B awards (DXCC & WAS) | Inception | ITM | LOTW | LOTW | LOTW | LOTW | LOTW |
| Medium | Add CQ WAZ award | Inception | ITM | LOTW | LOTW | LOTW | LOTW | LOTW |
| Medium | ARRL HQ LAN upgrade. | Construction | SM | SM | SM | SM | SM  NM | SM |
| Medium | Upgrade ARRL web site software components | Elaboration | ITM | ITM | ITM | *TDB* | *TDB* | *TDB* |
| Medium | Improve tools for ARRL electronic newsletters | Inception | ITM | *TDB* | *TDB* | *TDB* | *TDB* | *TDB* |
| Medium | Authentication web service for exam generation | Inception | ITM | *TDB* | *TDB* | *TDB* | *TDB* | *TDB* |
| Low | Upgrade HW desktop systems to MS Office 2013/Office 365 | Inception | OM | OM | OM | OM | OM | OM |
| Low | “Contest 2020” Phase I | Construction | ITM | ITM | ITM  DBA | ITM DBA | ITM  DBA | ITM  DBA |
| Low | “Contest 2020” Phase II | Inception | ITM | *TDB* | *TDB* | *TDB* | *TDB* | *TDB* |

**KEYS**

|  |  |
| --- | --- |
|  | **Function** |
| PM | Program Management |
| CM | Configuration Management |
| REQ | Requirements |
| DES | Design |
| COD | Coding |
| QA | Quality Assurance |

|  |  |  |
| --- | --- | --- |
|  | **Title** | **Individual** |
| ITM | IT Manger | Mike Keane |
| DEV1 | Web Developer | Dennis Budd |
| DEV2 | Web Developer | Maureen Farmer |
| DBA | Database Analyst | John Proctor |
| LOTW1 | Principal Software Engineer | Doug Haney |
| LOTW2 | Principal Software Engineer | Sean Wall |
| OM | Infrastructure & Operations Manager | Andy Shefrin |
| SE | Systems Engineer | Andrew Peichert |
| NE | Network Engineer | Hugh Brower |