Future Projects

From HUIT Architecture Advisory Group

Contents

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Planned Projects

There are many projects that would be worthwhile to undertake, but time and resources dictate that we prioritize. Below is a list that are high-impact and priority that we will undertake when time permits.

Software Engineering for the HUIT Distributed Architecture

In the same way we created a Technical Values Document and Requirements Checklist to help us make better decisions in the selection and use of technology, we should create some guidlines about best practices when coding for an environmet that is characterized potentially large scale distribution of components and geographical diversity.

Technology Road Map

Once an architecture is in place, we can look at all the technologies we have in place and evaluate if they are being put to best use. For example where do we want to use LDAP, Active Directory, Database or other technologies in our authentication and authorization and other services. What is the best way engineer a path from where we are and the technologies we have to those we want to use for specific purposes.

Integrated Tools and Operations for Configuration

This is a sub topic of an integrated management environment. The issue here is the selection of the smallest group of tools that will allow us to configure from bare iron all the way up to a running application. This includes all the network infrastructure as well. Different environments require different technologies, but the need for integrated configuration tools is clear. We must do this in spite of any particular organizational structure. An output of this work may be recommendations for changes in our organization:

> ***"...organizations which design systems (in the broad sense used here) are constrained to produce designs which are copies of the communication structures of these organizations."*** - Melvin E. Conway

Expanded Testing Requirments

Unit and systems testing are well-understood techniques with reasonably well defined requirements and techniques. Collecting some of these together may be helpful tools that could improve the reliaiblity of the systems and services we support. Beyond this 'deployment testing' testing the production environment with "Chaos Monkey" like approaches would be beneficial in some deployment architectures and counter productive in others. Guidelines and examples for these types of tests (and automated approaches for their exection) would be beneficial. See Gameday Testing for more information.

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