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DM21-1058

Podcast Title: Envisioning the Future of Software Engineering

<Canned Intro>

Forrest Shull: Welcome to the SEI Podcast Series. My name is Forrest Shull, and I am the lead for Defense Software Acquisition Policy Research here at the Software Engineering Institute. Today I am pleased to welcome Anita Carleton, director of the Software Solutions Division here at the SEI.

We are here to talk about the new study *Architecting the Future of Software Engineering: A National Agenda for Software Engineering Research & Development*. This is a major report that we recently completed to re-envision software engineering and to create a roadmap for future

research and investment.

Welcome.

Anita: Responds.

- 1. Forrest:** Anita, before we delve into the future of software, can you please tell our audience a little bit about yourself, your background, and the best part of your job here at the SEI?

- 2. Forrest:** Thank you Anita. Now, to turn our attention to today's topic, let's talk first about the *why* behind this roadmap to the future of software engineering. You've really been the driving force behind this work, and I wondered what motivated you to take on this big undertaking and make it a priority?

- 3. Forrest:** What was the focus of the study – Why is it important to bring the community together to articulate the future of software: the good, the bad, and the unknown? Also, when we talk about *the future* what timeframe are we looking at? How many years out?

- 4. Forrest:** Tell us about the roadmap in the report. Let's start by having you talk us through your process in creating the

roadmap. Who were the collaborators on the study?

- 5. Forrest:** In the report, you identified six technical areas that will create economic or national security advantage for those that can do these topics well in the future. Tell us about these six areas.

- 6. Forrest:** What roadblocks do you see in implementing these changes, and what steps can be taken now to mitigate them in the future?

- 7. Forrest:** This is an expansive report covering a lot of important topics, with take-aways for a number of different stakeholders.
 - a. If I am in managing a software program in government or industry or even a smaller enterprise, what's the most important action item I can take from this report? What resources are available to me?
 - b. If I am a researcher (in the DoD space or not), what might I use the information for?
 - c. Are there implications for government research funders or other stakeholders?
 - d. One of the points in the report is that our models of how industry, government, and academia collaborate

may need to change to address the larger and more societal-scale challenges. How might the report contribute to that?

8. Forrest: Congratulations again on this work. What's next for you and your team?

Forrest: Anita, thank you for talking with us today about this work. **For our audience,** we will include links in the transcript to resources mentioned during this podcast.

If you would like to download a copy of the report, please go to sei.cmu.edu and type **Future of Software** in the search field at the top of the page. We also have blog posts and an upcoming webcast on this topic. Again, we will include links to these resources in our transcript. Thanks again for joining us.

<Canned Outro>

