



## AROUND THE REGION IN HOMELAND SECURITY

The Northwest Regional Technology Center (NWRTC) is a virtual resource center, operated by Pacific Northwest National Laboratory (PNNL), to support regional preparedness, resilience, response, and recovery. The center enables homeland security solutions for emergency responder communities and federal, state, and local stakeholders in the Northwest.

### PNNL RESEARCHERS UNVEIL UPDATED BIODEFENSE ANALYSIS TOOL

PNNL unveiled an updated tool designed to help stakeholders assess the nation's preparedness for biological-based dangers, also known as biothreats. The tool was highlighted in [the Bulletin of the Atomic Scientists](#) and shared at the 2019 American Society for Microbiology Biothreats Conference.

The updated [Biodefense Policy Landscape Analysis Tool, known as B-PLAT 2.0](#), captures and presents a slew of information about U.S. efforts to protect its citizens and others around the world from threats as diverse as the plague, diseases like Ebola, threats from terrorists, potential risks to water and food supplies, and other myriad concerns.

Created by PNNL scientists Rachel Bartholomew and Kristin Omberg, B-PLAT 2.0 incorporates information from biodefense-related policy documents into one user-friendly tool, including presidential directives and U.S. Code, which spell out more than 400 duties and responsibilities on the part of 22 federal departments and agencies in the realm of biodefense.

The tool is free to use by scientists, government officials, and others interested in protecting people from biological-based threats. Read the [full article](#) for more information and visit B-PLAT 2.0 online at [bplat.pnnl.gov](http://bplat.pnnl.gov).

#### UPCOMING EVENTS

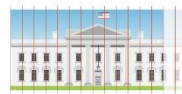
- May 6-8, 2019 – [Big 5G Event](#), Denver, CO
- May 29-30, 2019 – [Emergency Management Leaders Conference](#), Phoenix, AZ
- June 24-26, 2019 – [Critical National Infrastructure Summit](#), Washington, DC
- July 21-25, 2019 – [Pacific NorthWest Economic Region Annual Summit](#), Saskatoon, CA
- July 31-August 1, 2019 – [DHS Centers of Excellence Summit](#), Arlington, VA

#### CONTACT

- Want to know more? Visit us on the web at <http://nwrtec.pnnl.gov>.
- Contact the NWRTC with questions and comments at [nwrtec@pnnl.gov](mailto:nwrtec@pnnl.gov).

#### REPRESENTATION IN THE B-PLAT 2.0

EXECUTIVE AGENCIES



13 of 15

INDEPENDENT AGENCIES



6 of 38

EXECUTIVE OFFICES  
OF THE PRESIDENT



3 of 6

Other entities: Responsibilities are also assigned broadly to Congress, state, local, tribal, and territorial governments; and the American Red Cross.



## BUILDING TRUST IN BLOCKCHAIN FOR THE ELECTRIC GRID

In one of the largest blockchain grid-cyber projects of its kind, PNNL is teaming with Guardtime, Washington State University, Avista, industry vendors of industrial control systems and energy delivery systems, the U.S. Departments of Energy (DOE) and Defense, and over a dozen industry advisors to test and demonstrate blockchain's ability to increase the cybersecurity resilience of electricity infrastructure.

In March, the team demonstrated two of the project's first use cases. The first use case focused on securing critical data stored and exchanged between the energy management system or distribution management system and energy delivery systems. The second use case demonstrated how blockchain can help improve asset management and supply chain security for critical energy delivery systems.

These use cases are important as energy utilities work to secure an increasing number of end points from evolving cyber threats, while at the same time managing the rapid expansion of distributed energy resources and other smart devices.

These initial pilots suggest that blockchain shows potential to help secure these transactions while also enhancing grid resiliency by providing a novel security solution for managing and securing critical energy delivery systems and data.

Since its debut about a decade ago, this highly touted blockchain technology is still in its formative stages and often misunderstood. By validating and verifying the opportunities versus the hype, this blockchain project helped add clarity for securing the nation's power grid and other critical infrastructures.

In 2019, the team expects to start commercializing a blockchain-enabled cybersecurity controller and move beyond field testing to utility-level deployments. They will also explore opportunities to partner with industry and utilities to increase the speed, security, and interoperability of complex energy transactions.

Read the [full article](#) to learn more.

## TOUR EXPLORES NATIONAL LABORATORY CAPABILITIES

In April, PNNL hosted the Federal Bureau of Investigation (FBI) Seattle Division (SE) Weapons of Mass Destruction (WMD) Program to learn about respective responsibilities, capabilities, and opportunities in the WMD domain.

"This was a successful opportunity for us to share our respective programs combatting threats in the WMD spectrum, from sample collection and testing to training with our international partners," said Rachel Bartholomew, PNNL research scientist.

During the visit, the FBI SE WMD team attended briefings with PNNL researchers in chemical and biological security and toured the HAMMER Federal Training Facility to learn about the WMD training PNNL implements with international partners.

"It is always exciting to give first-hand demonstrations in the valuable research and resources of a national laboratory," said Bartholomew.

SE Division's visit to PNNL further strengthens the relationship between the FBI and DOE and underscores the need for a whole of government approach to protect against the WMD threat.

For more information, contact Director Ann Lesperance ([ann.lesperance@pnnl.gov](mailto:ann.lesperance@pnnl.gov) | (206) 528-3223), or Deputy Directors Ryan Eddy ([ryan.eddy@pnnl.gov](mailto:ryan.eddy@pnnl.gov) | (509) 372-6622) and Rob Jasper ([robert.jasper@pnnl.gov](mailto:robert.jasper@pnnl.gov) | (509) 371-6430), or visit <http://nwrhc.pnnl.gov>.

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