



## NSA Utah Data Center

### Background

The Utah Data Center, code-named Bumblehive, is the first [Intelligence Community Comprehensive National Cyber-security Initiative](#) (IC CNCI) data center designed to support the Intelligence Community's efforts to monitor, strengthen and protect the nation. Our Utah "massive data repository" is designed to cope with the vast increases in digital data that have accompanied the rise of the global network.

NSA is the executive agent for the Office of the Director of National Intelligence ([ODNI](#)) and is the lead agency at the center.

The 1.5 billion-dollar one million square-foot Bluffdale / Camp Williams LEED Silver facility houses a 100,000 sq-ft mission critical Tier III data center. The remaining 900,000 SF is used for technical support and administrative space. Our massive twenty building complex also includes water treatment facilities, chiller plants, electric substation, fire pump house, warehouse, vehicle inspection facility, visitor control center, and sixty diesel-fueled emergency standby generators and fuel facility for a 3-day 100% power backup capability.



*Utah Data Center Administration Building*

### **Learn More About Our Secret Surveillance Activities**

In recent months, numerous *Top Secret* documents have been leaked to the media relating to surveillance activities carried out by our Intelligence Community. In an effort to increase transparency, a new website called "[IC OFF THE RECORD](#)" was created

to provide the American People immediate, ongoing and direct access to these unauthorized leaks.

**Click on the Photo Below to View Utah Data Center Up Close at High Resolution**



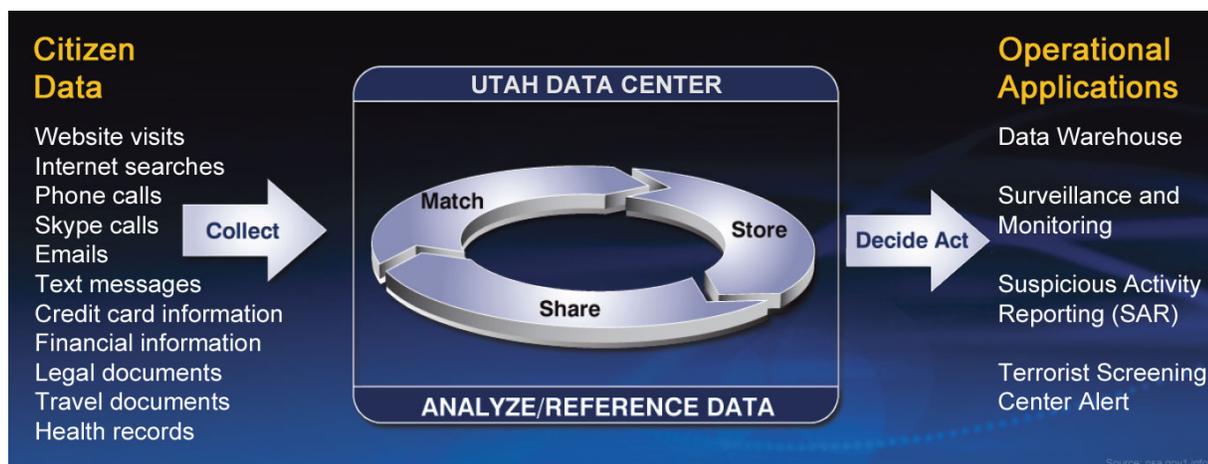
### Utah Data Center Technical Specifications

#### Data Storage Capacity

In February 2012, Utah Governor Gary R. Herbert revealed that the Utah Data Center would be the "[first facility in the world expected to gather and house a yottabyte](#)". Since then, conflicting media reports have also estimated our storage capacity in terms of zettabytes and exabytes. While the actual capacity is classified for NATIONAL SECURITY REASONS, we can say this: The Utah Data Center was built with future expansion in mind and the ultimate capacity will definitely be "alottabytes"!

The steady rise in available computer power and the development of novel computer platforms will enable us to easily turn the huge volume of incoming data into an asset to be exploited, for the good of the nation.

[Learn more about the domestic surveillance data](#) we process and store in the Utah Data Center. Also, [view our strategy](#) for using the PRISM data collection program, nationwide intercept stations, and the "Boundless Informant" mapping tool to gather and track this data.



## Code-Breaking Supercomputer Platform



The Utah Data Center is powered by the massively parallel [Cray XC30 supercomputer](#) which is capable of scaling high performance computing (HPC) workloads of more than 100 petaflops or 100,000 trillion calculations each second.

Code-named "Cascade", this behemoth was developed in conjunction with the Defense Advanced Research Projects Agency (DARPA) to meet the demanding needs of the Intelligence Community.

### **Our Ultimate Target: 256-bit AES**

The Advanced Encryption Standard (AES) algorithm is used worldwide to encrypt electronic data on hard drives, email systems, and web browsers. Computer experts have estimated it would take longer than the age of the universe to break the code using a trial-and-error brute force attack with today's computing technology.

In 2004, the NSA launched a plan to use the [Multiprogram Research Facility](#) in Oak Ridge, Tennessee to build a classified supercomputer designed specifically for cryptanalysis targeting the AES algorithm. Our classified NSA Oak Ridge facility made a stunning breakthrough that is leading us on a path towards building the first exaflop machine (1 quintillion instructions per second) by 2018. Since the capability to break the AES-256 encryption key within an actionable time period may still be decades away, our Utah facility is sized to store all encrypted (and thereby suspicious) data for safekeeping.



## Photos of the Utah Data Center

We are pleased to announce that as of 8/31/2014, the Utah Data Center is [100% complete](#). Here is a nice collection of wintry photos taken in early 2014:



- Aerial view of the Utah Data Center - 2014



- Chiller plant and generator plant



- Administration building and our four data halls



- Utah Data Center Administration building



Visitor Control Center



Our massive cooling systems at work



• Water tanks for our chiller plant

## **Work at the Utah Data Center**

Are you interested in a career in Domestic Surveillance? Check out our [Utah Data Center jobs](#) page for exciting employment opportunities.

## **Operating the Utah Data Center**

It takes a large dedicated team to keep a data center up and running. Here are just some of the positions staffed by contractors at the UDC:

### **Mechanical Engineer**

Responsible for mechanical systems, to include chiller plants, cooling distribution, cooling towers, water treatment, air handler units, generator plants, and fuel distribution systems. [More details](#)

### **Network Engineer**

Responsible for Real Time Database and SCADA network.

### **High Voltage Electrician**

Install or repair electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment.

### **Mechanical Technician**

Responsible for the facility Heating, Ventilation, Air Conditioning (HVAC) systems.

### **Controls Engineer/Electrical Systems Operator**

Operate and maintain the Data Center's Electrical Systems providing oversight and incorporating SCADA and EMCS control system changes.

**Facilities Control Center Watch Officer**

Plan and manage operations, maintenance and all other activities for assigned shift at a 24-hour data center facility to ensure safe, compliant, and productive operations.

**Fuel Distribution Operator**

Responsible for the fuel oil receiving, storage, and distribution system.

**Quality Specialist**

Responsible for developing, implementing and administering quality programs and plans affecting compliant and reliable operations.

**Systems Analyst**

Provides technical support for data center asset management system by performing all database administrative duties.

**Master Plumber**

Installs, modifies and repairs utility, supply, and disposal systems, and equipment, such as water; mains, oil and gas distribution systems, air compression equipment, water closets, as well as all type of fire protection equipment.

**Instrumentation & Electrical Technician**

Performs routine maintenance, installation and integration of various types of process control instrumentation equipment such as transmitters, controllers, integrators, recorders, square root extractors and final drive elements.



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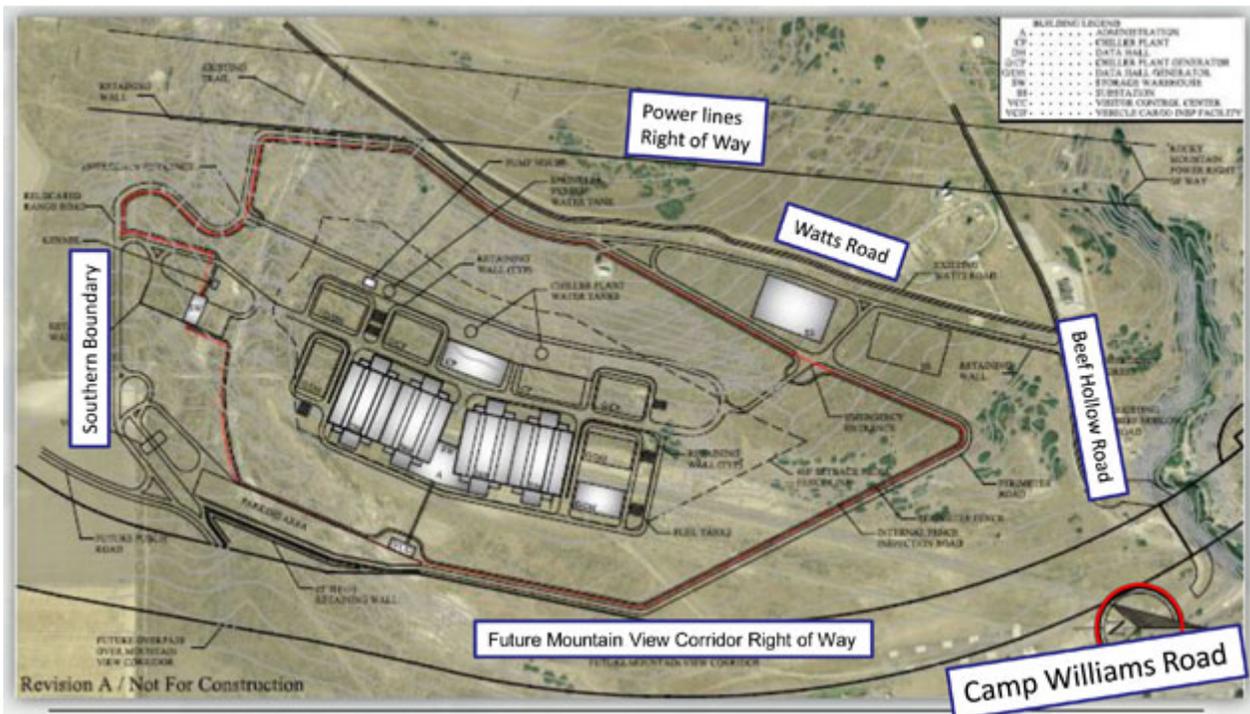
*Utah Data Center keeps watch 24 hours a day*

## What's Being Said About the Utah Data Center on Twitter

We are Americans first, last, and always. We treasure the U.S. Constitution and understand that a spirited debate is often a necessary precursor to acceptance.

### Utah Data Center Site Plan

The site plan below shows the location of the administration building, chiller plant, data halls, generators, fuel storage tanks, storage warehouse, power substations, visitor control center, and vehicle inspection facility.



Utah Data Center Construction Photos: March 2012 - June 2013



Aerial front view of the Utah Data Center under construction - March 2012



Close-up view of a data hall and the Administration building - March 2012



- Aerial view of the UDC construction site - July 2012



- Last two data halls still under construction - July 2012



Chiller plant, generator plant, and tank storage under construction - July 2012



Close-up view of completed data hall and Administration building - June 2013



- Four completed data halls and the Administration building - June 2013



- Completed chiller/generator plants and fuel tanks - June 2013



• Close-up view of the cooling units - June 2013



• Storage warehouse, canine kennel, and sprinkler system water tank - June 2013



• Vehicle cargo inspection facility



*October 2013 - Southern end of the Utah Data Center facility*

## **Openness and Transparency: Our Cooperation with Privacy Groups**

As proof of our genuine concern for privacy protection, we recently gave permission for several privacy groups to fly their little blimp over our massive data center. We would like to thank these airborne privacy pioneers for the stunning photo below of our impressive facility. By allowing harmless publicity stunts like these, we can have our data and store it too.



*Utah Data Center - June 2014 ([View this stunning photo in full-size](#))*