ZELLA DC™

Making Edge Easy

Problem solving in different countries and industries

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Zella DC Global Use Cases

Table of Contents

Atlas Mines Western Australia

Small office in a tropical cyclone region.

The Situation

This Atlas Mines office in Western Australia was very busy, without a dedicated server room to house essential ICT equipment. They also had limited space available.

The Challenge

Due to the limited space, the micro data centres needed to be quiet enough to work next to in close proximity. But the real challenge came from hot, cyclonic nature of the weather patterns in this part of Western Australia which sent a massive weather event that devastated the office complex and peeled off the roof.

The Outcome

The office was flooded during the cyclone and all equipment was destroyed except the Zella Pros, which had been located in a hallway near the desks. The units were quickly decommissioned and then recommissioned in another location with no data being lost.

Austal Philippines & Vietnam

Remote location with limited IT personnel.

The Situation

Austal has sites across multiple countries. They need to process a lot of data locally but they have limited IT personnel onsite. Keeping data safe, both from a cyber and from a physical point of view, is a priority.

The Challenge

Planning and building a traditional onsite server room with the same standards as a traditional data centre is too costly and requires extensive project management and time. It would also be difficult to maintain the server room without specialist personnel.

The Outcome

The pre-programmed Zella Pro was commissioned, installed and fully operational within a day. Once connected to the network, the IT team in Perth had centralised control over all of the IT infrastructure covering two separate countries.

Bakers Flour Mill New Zealand

Dusty environment and hard to reach location.

The Situation

Bakers Flour Mill in New Zealand has very fine dust in the air that has clogged up previous switches and servers installed on-site. In addition, the Zella Pro had to be placed many levels up in the facility requiring the unit to be craned into place and dropped through a hole in the roof.

The Challenge

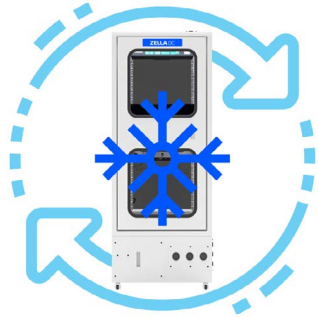
A fire occurred in the unit where a non-Zella Pro switch caught alight - only one or two events like this have happened in 10 years and neither caused by Zella DC faults. The Pyrorack immediately nullified the fire by deploying its gas and swiftly terminating the fire.

The Outcome

The Zella DC 38 has proven its ability to deal with both dust and fire and the owners have enjoyed plenty of accident-free data management years.

Bariq Mining Ltd Saudi Arabia

A rugged, dust proof solution for a hot mine site.



The Situation

Bariq Mining is a copper producer, with several operating mines and advanced exploration projects in Saudi Arabia.

The Challenge

Bariq were looking for a data storage solution that could be easily deployed and operated on a mine site. Traditional on premise server rooms are not a practical solution for mine sites as they are hot and dusty environments with limited IT personnel and infrastructure.

The Outcome

Our rugged, dust proof micro data centres were the ideal choice for Bariq. We deployed two Zella Pro 38 with dual cooling. All our products include precision cooling to protect your equipment and data 24 / 7 from overheating. The Zella Pro 38 is highly automated and can be managed remotely - an ideal choice for Smart Mines.

Bechtel Western Australia

Shared IT environment on a hot and dusty mine site.

The Situation

The oil and gas boom in 2012 in Australia generated a great deal of infrastructure projects with Bechtel being a major player in the boom. North-west Australia is a hot, cyclonic region many thousands of kilometres from a city and limited access to specialist IT services.

The Challenge

Bechtel is the construction arm of a major oil corporation and both companies needed to gather data separately to maintain the operational separation. As a result, two separate IT infrastructures were needed with absolute security between them.

The Outcome

In the same room, two Zella Pros units were purchased with each managed by separate teams with different entry codes, creating two completely separate environments. The two units have been running for 4 years without incident.

BHP Port Hedland, Western Australia

Hard to access tower in a very hot region.

The Situation

The tower that monitors all the shipping in Port Headland is hard to access and totally enclosed making over-heating an issue on the frequent 40˚+ days in that region.

The Challenge

Once in place the micro data centre needed to self-cool and operate reliably without easy access from specialists. As people needed to also work in the tower, the noise and heat the unit created needed to be well within acceptable health and safety guideline levels.

The Outcome

A crane lifted the Zella Pro 25 dual-cooled unit into the control tower and since being commissioned it has operated without incident for around 10 years with minimal maintenance.

BHP West Musgrave, Western Australia

Remote mine site with limited IT personnel in a tropical cyclone region.

The Situation

When this Zella Pro was first sent out to this remote mine site, it was in the very early stages of the exploration stage. No specialist on-site IT personnel were available at all.

The Challenge

In day-to-day operations the units needed to be quiet enough to be placed next to desks. But the real challenge came from hot, cyclonic nature of the weather patterns in this part of Western Australia which sent a massive weather event that devastated the office complex.

The Outcome

The unit was therefore decommissioned and sent to another BHP site in Chile. The versatility of the solution allows it to be relocated with ease anywhere in the world.

Billiton Mitsubishi Alliance Queensland, Australia

Dusty, hot and harsh environment in a remote location.

BHP Billiton Mitsubishi Alliance

The Situation

This is a challenging site, with fine coal dust, tremors from its proximity to the open mine site and wet seasons with major electrical storm events and humidity. One of the units had to be placed in a sheltered but outdoor location.

The Challenge

The main challenge for this project was the distribution of infrastructure across a large mine site, a dusty, hot, harsh environment where it would be costly to fly in specialist personnel for maintenance.

The Outcome

These are Zella DC's longest operating units having been in constant action with the same cooling system for over 10 years. There are two units in different locations in the spread out mine site and these are managed centrally from the head office.

BT Innovation Centre United Kingdom

A safe and reliable data storage solution for the financial industry.

The Situation

Located at its Adastral Park research and development hub in the UK, BT Innovation (the research arm of BT Telecom) has created a customer experience showcase for financial industry clients. It demonstrates how digital innovations can be securely adopted throughout a financial services organisation to improve efficiency and customer experience while creating a platform to drive growth.

The Challenge

In the UK and globally, financial services companies are rethinking how they interact with customers to take advantage of digital technologies while responding to changing regulations and competition. But new technologies produce a lot of data that needs to be stored at the edge to reduce latency and increase security.

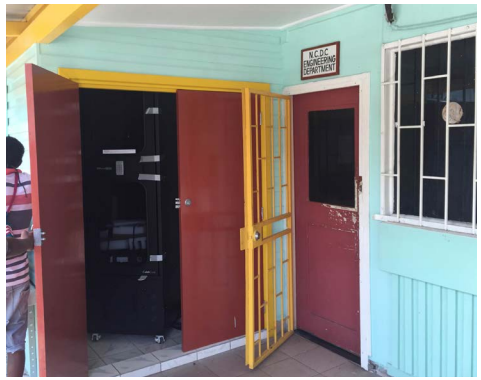
The Outcome

A Zella Pro 12 is part of one of the solutions offered to the financial industry.

The Zella Pro offers on premise data storage and processing with a very small footprint. It an easily be placed in a working environment as it's very quiet, with no air coming in or out and a very small footprint.

CDC Papua New Guinea

Limited IT personnel and cyber security concerns.



The Situation

This region is affected by an AIDS epidemic which the CDC is monitoring. Data gathered on the spread of the virus is kept on the premises in Port Moresby and connected to a network of servers that gather and store information from its base in the US. The personal health records of patients and treatments must be kept highly secure.

The Challenge

With limited IT-trained staff on-site, it was critical that the units could be managed from the US. PNG's bandwidth and latency restrictions presented a major barrier to managing data with the unstable power supply further compounding the problem. The data had to be secure with restricted access to the servers and switches in the units.

The Outcome

Data-driven decision making can now take place to improve patient care thanks to two Zella Pro 38 units. The units take up limited floor space and can be easily redeployed. There have been significant power savings, improved timeliness and better accuracy of data collection and reporting.

Read the full Case Study.

CSC Western Australia

Extremely hot office location.

The Situation

The front reception area of the Computer Science Corporation (CSC) is the only space where the Zella Pro could be situated due to space restrictions. Unfortunately, it is exposed to high levels of heat from the direct sunlight for much of the day.

The Challenge

Over the weekend the Zella Pros had to work considerably harder as the air conditioning in the building was turned off. In summer, this space can reach 40˚ Celsius in the afternoon which in any normal server rack would pose an extreme risk to the data management process.

The Outcome

Our Zella Pros are built with the capacity to self-regulate temperature by only cooling the air around the servers and not the entire room. The unit ramps up and down its cooling capacity depending on external temperatures. As the Zella Pro is very quiet, CSC was able to place it in close proximity to desks.

Department of Finance Western Australia

Small and hot office environment.

Australian Government
Department of Finance

The Situation

During the summer months, the temperature within this office can climb to levels that are dangerous for a traditional server room – especially during the weekend when the office air conditioning is turned off.

The Challenge

The Zella Pros are placed next to meeting rooms and desk space so the challenge was to manage data on-site without the need for a dedicated noise and heat-controlled room that would cost a considerable amount of money to build, power and maintain.

The Outcome

The two Zella Pro units have been working for 7-years completely incident-free and with 100% uptime. People can work in close proximity to the units as they are noiseless, emit no heat and are 100% secure.

eGrowth IT South Africa

Eliminating the need for a traditional server room.

The Situation

eGrowth is a consulting company based in South Africa. They offer a range of services around business strategy and development, technology integration and renewable energy solutions.

The Challenge

eGrowth needed a standardised data storage solution that could be managed and controlled from a central location. They also didn't want the hassle of planning, building and maintaining a traditional on premise server room.

The Outcome

We were able to solve eGrowth challenges with two edge ready micro data centres. A Zella Pro 25 was deployed in the head office and a Zella Pro 12 was deployed at a secondary site. They are both centrally managed and controlled whilst processing and storing data locally.

Gold Mining Company Western Australia

Centralised monitoring of many units across different regions.

The Situation

From the hot, dusty mine sites and to the city office - this mining company needed a solution that could work in vastly different environments.

The Challenge

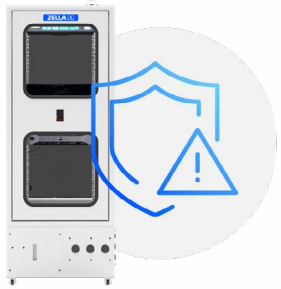
All locations needed the rapid roll-out of a standardised Smart Mine solution that could be easily used without relying on IT staff as flying specialist personnel to remote mines sites is complicated and expensive.

The Outcome

The head office located in Perth has had 100% uptime since the installation of a Zella Pro. All Zella Pros are automated to respond to each individual environment so they are tailored to the individual requirements, but they are all centrally managed and monitored.

Government of Liberia Liberia

Reliability and cyber security: a must-have for a Government office.



The Situation

One of the departments of the Government of Liberia had to upgrade their IT infrastructure. They process large amounts of sensitive data locally with security being a main concern. Reliability is also paramount to ensure the smooth running of critical operations.

The Challenge

The Liberian Government needed a solution that was physically protected as well as cyber secure. They also needed highly automated processes that could be managed remotely. Finally, they also requested a fast turnaround.

The Outcome

A Zella Pro 38, with dual cooling, was easily ordered online and delivered in a matter of weeks. It was then installed and commissioned by local contractors. The Zella Pro 38 is now managed by an integrator (third party) from another country.

HiSeis Western Australia

Easy to scale and easy to relocate solution.

The Situation

HiSeis is an Australian company specialising in high definition seismic reflection techniques. HiSeis bring together the technical, operational and industry expertise of staff from Curtin University, Geophysical Technicians and an experienced Explorationist.

The Challenge

HiSeis had three main challenges:

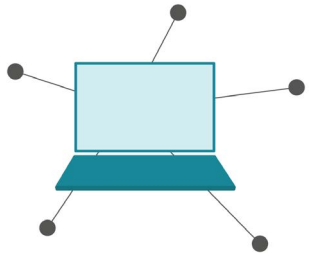
1. Increasing data storage capacity to meet the growing demands of the business.
2. Ensure the solution would allow them to relocate with ease.
3. Allow for further growth and ensure an increase in data later would be easily accommodated.

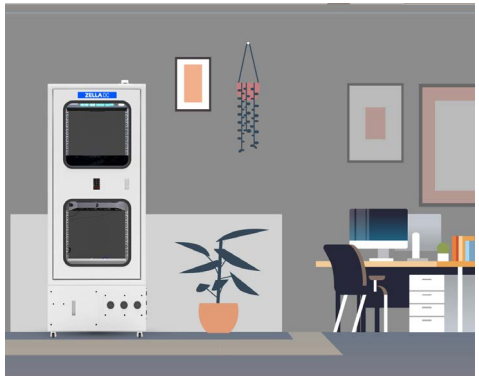
The Outcome

HiSeis opted for two Zella Pro 25s, which were delivered and installed within 5 weeks of purchase. Data storage was quickly increased whilst having the option to easily add more units later, which they can use together or independently. When they are ready to relocate, HiSeis will be able to quickly unplug the Zella Pros and reinstall in the new location in a couple of hours.
Read the full Case Study.

Home Install Tasmania

Quiet environment in a suburban location.





The Situation

The basement of a suburban home is not a usual place for a Zella DC unit however this IT consultant was forced to increase on-site data storage with the onset of the COVID-19 pandemic. The client was concerned about cost, noise, and fire.

The Challenge

The client was looking for a micro data centre that was quiet so as not to disturb his family and close neighbours. He also wanted a unit with in-built fire protection.

The Outcome

After considering many alternatives, this consultant went with Zella DC because of confidence in the units' safety features and it has lived up to expectations.

Hutchins School Tasmania

Modern IT solution for a tight budget.

The Situation

The Hutchins School is the preeminent boy's school in Hobart, Tasmania. The private school has approximately 1000 students and 250 staff on a single campus. The students and staff needed a durable solution that could outlive the growing pains of evolving technology and school studies.

The Challenge

The Hutchins School began to outgrow the current server room environment. The aging server room was not energy efficient. The existing server room's cooling systems consumed large amounts of power to compensate for fluctuations in humidity and temperature within the room.

The Outcome

The School decided to replace the old server room with two Zella Pro 38s. This allowed them to save 30% to 60% on power expenses. They also now have the option to easily add another Zella Pro if and when needed. And they were able to reclaim the space used by the old server room.

Read the full Case Study.

Internet Initiative Japan

Outdoor data centre for telecom and 5G technology.

Internet Initiative Japan

The Situation

IIJ is one of Japan's leading internet-access and comprehensive network solutions provider. They are developing a MEC solution that will complement the 5G roll-out. 5G and MEC technologies are ideal for applications that require low latency, efficient and reliable communication as well as security: smart factories, telemedicine, autonomous driving, smart farms, etc.

The Challenge

Traditional, centrally-located data centres don't have the underlying infrastructure necessary for end-to-end 5G technology to work. 5G technology relies on edge micro data centres located at the source, by the 5G antennas. In many cases, due to lack of space and infrastructure, this means the micro data centre needs to be placed outdoors, in remote locations or even on the roof of buildings.

The Outcome

We were able to help IIJ with Zella Hut, our outdoor micro data centre. Zella Hut is water proof, dust proof, UV resistant and secure. It's also environmentally friendly and it can be easily connected to either wind or solar power sources. Zella Hut is the ideal choice edge computing solutions for the telecom industry.

Kenmore Papua New Guinea

Standardised solution across many sites with up to 70% cost savings.

The Situation

The Kenmore group has over 1400 staff in PNG spread over 18 locations that are hard to service from a traditional IT perspective.

The Challenge

Energy cost for powering one server room was consistently over A$3,000 per month during summer, which was multiplied across the network. Access to a reliable internet connection is limited in PNG meaning IT infrastructure must be de-centralised and self-contained as much as possible.

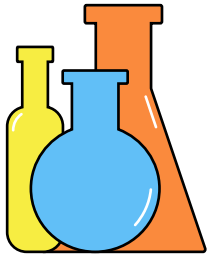
The Outcome

12-months of data showed the cost of energy reduced from over $100 to $30 per day giving a confirmed payback period of 3 years. This meant savings of up to 70%.

Read the full Case Study.

Laboratories New York City

Safe and standardised data storage solution.



The Situation

This major global pharmaceutical company needed a safe data storage solution that they could easily deploy in their head office as well as in their many offices across the world.

The Challenge

The challenge for this company is to process and store large amounts of data on-site in a manner that is both cyber secure and free from on-site interference. As this company has offices in many countries, they also need a standardised solution across the board.

The Outcome

Three units are now used in two separate laboratories located in New York City. The Zella Pros have redundancy in both cooling and power that de-risks the management of the laboratory data for many years to come. All three units have been integrated into the building's HID access control system.

Malawi Airport Malawi

Minimised downtime in a tight space.

The Situation

As in every other airport, the Malawi airport needs 100% uptime for ticketing purposes and safe operations. All data needs to be processed locally and reliability is paramount to avoid delays and accidents.

The Challenge

Keeping the passport and ticketing system up and running is a major priority for an airport. The challenge for a small airport is to find room for a server room within the limited space available.

The Outcome

A third-party IT team is managing this critical IT infrastructure and captures and stores all the passenger data on-premise. After many years the unit has a record of 100% uptime without incident, keeping the operations running smoothly.

Metro Power Western Australia

Shared and fluid office environment.

The Situation

This 2010 unit was the first Zella DC unit ever built (under the former name of 'Zellabox') for the company's first customer. It was installed in Bentley, Western Australia in an office that was open plan, a shared office environment that not easy to secure.

The Challenge

Apart from keeping the data secure in an open space, the office space was highly dynamic with many rearrangements as new staff levels increased and new fit-outs were commissioned.

The Outcome

This ten-year-old unit is still in use with no incidents. Over this time the Zella Pro has been moved a number of times with a minimum of fuss. This allowed for Metro Power to be completely flexible when rearranging the office.

Musket Cove Resort Fiji

Keeping your servers cool in hot climates.

MUSKETCOVE
Island Resort & Marina, Fiji

The Situation

The Musket Cove Island Resort and Marina is situated on an island in Fiji. They were having many problems with their existing server room; in particular, they found it hard to control the temperature as the server room kept overheating during the summer months.

The Challenge

On site space is limited, as Musket Cove is a small boutique resort, so they wanted to be able to place the servers near their working area, next to personnel and guests. They needed a solution that was easy and cheap to cool down as well as sound proof.

The Outcome

Musket Cove ordered a Zella Pro 25 online and it was delivered to their island in a matter of weeks. The new solution was perfect for their environment as the Zella Pro 25 has a small footprint (the size of a fridge) and it's sound proof. They were also able easily keep their servers cool during the summer months with no issues.

New Caledonia University New Caledonia

A quick process: fast build, installation and commissioning.

The Situation

The New Caledonia University was looking into building an on-premise server room. They quickly realised that building a server room is a complex project that takes lots of time and effort. They started looking into faster alternatives and they came across Zella DC.

The Challenge

As soon as the university got in touch with Zella DC, they knew we had the right solution. Instead of waiting months to have an up and running server room and spending time managing a complex project, they were able to easily order five Zella Pro 38 that were built and delivered in six weeks.

The Outcome

Once the university received the five Zella Pro 38, they were able to install them in a matter of days using local contractors: a local electrician to connect to mains power, an air conditioning technician to commission the cooling system and their in-house IT personnel to add their 19" rack mounted servers and equipment.

Newmont Gold Papua New Guinea

Hard to reach location with limited infrastructure.

The Situation

This small, remote exploration site in PNG could only be accessed by a twin-propeller airplane onto which the Zella Pro unit needed to fit. The site was also exposed to rough weather conditions.

The Challenge

As a result of regular flooding to the room, the Zella Pro was placed on a makeshift stool. Mine sites go through a range of stages dependent on how much and what type of deposits are located in the exploration stage. In this case, after 12-months it was decided that the need for data management on site was less than anticipated.

The Outcome

The Zella Pro was delivered to this remote location without incident and installed by non-specialist IT personnel. The unit was operational for 2-years in PNG with 100% uptime in very challenging conditions. It was then recommissioned in a new location in Indonesia for another few years and is still operating at 100% uptime.

Nissan Chile, South America

Very small footprint available in a high rise building.

The Situation

The Gran Torre in Santiago de Chile is the tallest building in South America and home to Nissan Chile. The office space is very expensive and does not come with an on-premise server room. They have very high office fees and didn't want to use up expensive real estate for a server room.

The Challenge

The explosive growth of the company meant that Nissan needed to stay flexible and prepare to move as office space became congested. The company needed to allow for as many desks as possible which meant using up all available office space.

The Outcome

After a very short procurement process, the unit was wheeled in and commissioned with a minimum of fuss. The unit has been working now for 4 years with 100% uptime. The monitoring of the unit is conducted from Nissan head office in Brazil giving the company total control over a standardised network.

Read the full Case Study.

Petroecuador Ecuador

Highly distributed set up managed from one central location.

The Situation

Petroecuador is the national oil company of Ecuador. Petroecuador is engaged in the exploration, production, storage, refining of crude oil, and retailing petroleum products.

The Challenge

With many locations distributed at high altitude across the Andes, Petroecuador needed a highly automated and standardised data storage solution that could be installed and commissioned by local contractors but managed and controlled from one location.

The Outcome

Petroecuador decided to purchase 16 Zella Pro 25 to deployed in different locations, some of them remote, rugged and unmanned. The Zella Pro 25 is dust proof, secure, rugged and easily deployed to remote and hard to reach locations. They are now able to monitor and manage from their head office in Quito, Ecuador.

PNG Air Services Papua New Guinea

Centralised monitoring for automated data centres in remote spots.

The Situation

Zella DC units needed to provide ICT infrastructure in very isolated locations in PNG so as to track commercial air traffic over the country. In many cases the units sit at the base of a mobile phone tower or base station looking out over a mountainous jungle region.

The Challenge

The Zella Pros had to be located outdoors. The centralised IT team in Port Moresby had to maintain control with no personnel on-site. The units therefore had to be self-automated with the ability to perform certain functions in the case of an emergency such as a power cut (i.e. turning on the back-up generator).

The Outcome

None of the units had its sealing compromised during this time. The in-built fire and water sensors were at no point triggered and 100% uptime was maintained. The back-up generator was not required although this redundant capability remains essential to the value proposition of the Zella Pro. The result was reliability and uptime.

RSPCA Western Australia

Small office with limited footprint.

The Situation

This office located in Malaga in Western Australia is a busy space where people must work in close proximity to the Zella DC units.

The Challenge

After a series of break-ins to their premises, the client needed to improve the security of its information. The dedicated server room also needed to be reclaimed and converted to more offices.

The Outcome

The decision to not build a dedicated server room and place the Zella Pros in a common area reflects the security of the unit in any environment. The units only cool the servers and not the whole room, so they are energy-efficient and cost-effective. The units have been in operation for 5 years incident-free and have solved flexibility issues.

Shadow Safe Queensland, Australia

Cool office environment and scalability.

SHADOWSAFE

The Situation

This IT provider in Brisbane, Australia operated firstly from an office space that was soon out grown. The Zella Pros were then transported to a larger office environment where people needed to work in close proximity to the units.

The Challenge

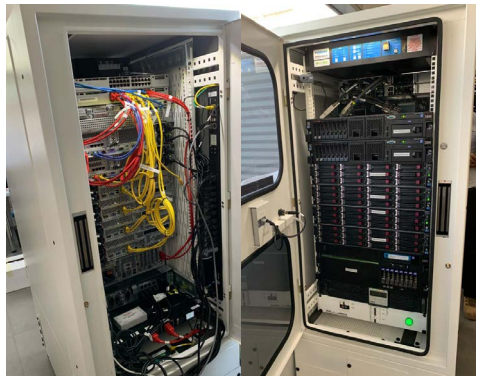
Apart from play the IT-related role for which they were intended, the units had to fit into an office aesthetic which was modern and sophisticated. As the business grew, it needed to scale up its data management capability with additional units that connected in a modular fashion.

The Outcome

We are proud to say that our client chose to use our units as the backdrop for internal videos! The decision to not build a dedicated server room and place the Zella Pros in a common area reflects the versatility of the unit in any environment. Zella Pros are also energy-efficient and cost-effective while also giving scalability and mobility.

Toyota Papua New Guinea

Standardisation across multiple sites.



The Situation

The Toyota dealerships across PNG are without on-site IT expertise and don't have the space to house traditional server rooms. They needed to be able to relocate the units at will without threatening the security of the information stored within.

The Challenge

Processing large amounts of data locally, new locations were built without on premise server rooms, and required standardisation across multiple sites.

The Outcome

Data-driven decision making can now take place to improve customer care thanks to two Zella Pro 38. They take up limited floor space and can be easily redeployed. There have been significant power savings, improved timeliness and better accuracy of data collection and reporting.