

Response to:

Washington State Department of
Enterprise Services No. 00318

Cooperative Purchasing Master
Agreement for Public Safety
Communication Products, Services
and Solutions

Zetron – Supplemental Information

February 8, 2021



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ACORD™

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

12/11/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER USI Insurance Services NW CL 601 Union Street, Suite 1000 Seattle, WA 98101	CONTACT NAME: Lucas Cook PHONE (A/C, No, Ext): 206 441-6300 FAX (A/C, No): 610-362-8530 E-MAIL ADDRESS: lucas.cook@usi.com														
INSURED Zetron, Inc. P. O. Box 97004 Redmond, WA 98073-9704	<table border="1"> <thead> <tr> <th data-bbox="816 426 1433 453">INSURER(S) AFFORDING COVERAGE</th> <th data-bbox="1433 426 1563 453">NAIC #</th> </tr> </thead> <tbody> <tr> <td data-bbox="816 453 1433 483">INSURER A : Gemini Insurance Company</td> <td data-bbox="1433 453 1563 483">10833</td> </tr> <tr> <td data-bbox="816 483 1433 512">INSURER B : Endurance American Specialty Ins Co</td> <td data-bbox="1433 483 1563 512">41718</td> </tr> <tr> <td data-bbox="816 512 1433 541">INSURER C : Twin City Fire Insurance Company</td> <td data-bbox="1433 512 1563 541">29459</td> </tr> <tr> <td data-bbox="816 541 1433 571">INSURER D : Hartford Fire Insurance Co</td> <td data-bbox="1433 541 1563 571">19682</td> </tr> <tr> <td data-bbox="816 571 1433 600">INSURER E :</td> <td data-bbox="1433 571 1563 600"></td> </tr> <tr> <td data-bbox="816 600 1433 636">INSURER F :</td> <td data-bbox="1433 600 1563 636"></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Gemini Insurance Company	10833	INSURER B : Endurance American Specialty Ins Co	41718	INSURER C : Twin City Fire Insurance Company	29459	INSURER D : Hartford Fire Insurance Co	19682	INSURER E :		INSURER F :	
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INSURER F :															

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PRO-JECT ☐ LOC OTHER:			VCGP025479	04/01/2020	04/01/2021	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000 MED EXP (Any one person) \$15,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
D	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS NON-OWNED AUTOS ONLY			52UUNHA1451	04/01/2020	04/01/2021	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	UMBRELLA LIAB ☒ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED RETENTION \$			ELD10004908706	04/01/2020	04/01/2021	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☒ Y / N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	52WEZH4251 Incl. WA	04/01/2020 Stop Gap	04/01/2021	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: NASPO Cooperative Purchasing Master Agreement No. 00318

Additional Insured status applies in favor of the State of Washington and all authorized Purchased and their agents, officers, and employees, per written contract or agreement. Waiver of Subrogation applies in favor of the same. Coverage is Primary and Non-Contributory as it relates to Additional Insureds. Excess policy follows form. 60 day prior notice of cancellation applies per policy provisions.

CERTIFICATE HOLDER

CANCELLATION

State of Washington Dept. of Enterprise Services Attn: Neva Peckham 1500 Jefferson Street, SE Olympia, WA 98501	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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Policy Number: VCGP025479
Insured Name: Zetron Inc.
Number: 39

CG 20 10 04 13

Effective Date: 04/01/2020

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – SCHEDULED PERSON OR
ORGANIZATION**

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

SCHEDULE	
Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Any person or organization when you have agreed in a written and executed contract, prior to an "occurrence", that such person or organization be added as an additional insured on your policy.	All locations for which you have agreed in a written and executed contract prior to an "occurrence."
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and

2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or

2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.
- C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

Policy Number: VCGP025479
Insured Name: Zetron Inc.
Number: 41

CG 20 37 07 04

Effective Date: 04/01/2020

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

SCHEDULE	
Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
Any person or organization when you have agreed in a written and executed contract, prior to an "occurrence", that such person or organization be added as an additional insured on your policy.	All locations and completed operations for which you have agreed in a written and executed contract prior to an "occurrence."
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

Policy: VCGP025479
Insured Name: Zetron Inc.
Number: 14

CG 20 01 04 13

Effective Date: 04/01/2020

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY – OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- (1) The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

Policy Number: VCGP025479
Insured Name: Zetron Inc.
Number: 40

CG 20 12 04 13

Effective Date: 04/01/2020

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – STATE OR GOVERNMENTAL
AGENCY OR SUBDIVISION OR POLITICAL
SUBDIVISION – PERMITS OR AUTHORIZATIONS**

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

SCHEDULE
State Or Governmental Agency Or Subdivision Or Political Subdivision: Any qualifying entity when you have agreed in a written and executed contract, prior to an "occurrence", that such qualifying entity be added as an additional insured on your policy
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Section II – Who Is An Insured is amended to include as an additional insured any state or governmental agency or subdivision or political subdivision shown in the Schedule, subject to the following provisions:

1. This insurance applies only with respect to operations performed by you or on your behalf for which the state or governmental agency or subdivision or political subdivision has issued a permit or authorization.

However:

- a. The insurance afforded to such additional insured only applies to the extent permitted by law; and

- b. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

2. This insurance does not apply to:

- a. "Bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the federal government, state or municipality; or
- b. "Bodily injury" or "property damage" included within the "products-completed operations hazard".

- B.** With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

COMMERCIAL AUTOMOBILE BROAD FORM ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

To the extent that the provisions of this endorsement provide broader benefits to the "insured" than other provisions of the Coverage Form, the provisions of this endorsement apply.

1. BROAD FORM INSURED

A. Subsidiaries and Newly Acquired or Formed Organizations

The Named Insured shown in the Declarations is amended to include:

- (1) Any legal business entity other than a partnership or joint venture, formed as a subsidiary in which you have an ownership interest of more than 50% on the effective date of the Coverage Form. However, the Named Insured does not include any subsidiary that is an "insured" under any other automobile policy or would be an "insured" under such a policy but for its termination or the exhaustion of its Limit of Insurance.
- (2) Any organization that is acquired or formed by you and over which you maintain majority ownership. However, the Named Insured does not include any newly formed or acquired organization:
 - (a) That is a partnership or joint venture,
 - (b) That is an "insured" under any other policy,
 - (c) That has exhausted its Limit of Insurance under any other policy, or
 - (d) 180 days or more after its acquisition or formation by you, unless you have given us notice of the acquisition or formation.

Coverage does not apply to "bodily injury" or "property damage" that results from an "accident" that occurred before you formed or acquired the organization.

B. Employees as Insureds

Paragraph A.1. - WHO IS AN INSURED - of SECTION II - LIABILITY COVERAGE is amended to add:

- d. Any "employee" of yours while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

C. Lessors as Insureds

Paragraph A.1. - WHO IS AN INSURED - of Section II - Liability Coverage is amended to add:

- e. The lessor of a covered "auto" while the "auto" is leased to you under a written agreement if:
 - (1) The agreement requires you to provide direct primary insurance for the lessor and
 - (2) The "auto" is leased without a driver.

Such a leased "auto" will be considered a covered "auto" you own and not a covered "auto" you hire.

D. Additional Insured if Required by Contract

- (1) Paragraph A.1. - WHO IS AN INSURED - of Section II - Liability Coverage is amended to add:
 - f. When you have agreed, in a written contract or written agreement, that a person or organization be added as an additional insured on your business auto policy, such person or organization is an "insured", but only to the extent such person or organization is liable for "bodily injury" or "property damage" caused by the conduct of an "insured" under paragraphs a. or b. of Who Is An Insured with regard to the ownership, maintenance or use of a covered "auto."

The insurance afforded to any such additional insured applies only if the "bodily injury" or "property damage" occurs:

- (1) During the policy period, and
- (2) Subsequent to the execution of such written contract, and
- (3) Prior to the expiration of the period of time that the written contract requires such insurance be provided to the additional insured.

(2) How Limits Apply

If you have agreed in a written contract or written agreement that another person or organization be added as an additional insured on your policy, the most we will pay on behalf of such additional insured is the lesser of:

- (a) The limits of insurance specified in the written contract or written agreement; or
- (b) The Limits of Insurance shown in the Declarations.

Such amount shall be a part of and not in addition to Limits of Insurance shown in the Declarations and described in this Section.

(3) Additional Insureds Other Insurance

If we cover a claim or "suit" under this Coverage Part that may also be covered by other insurance available to an additional insured, such additional insured must submit such claim or "suit" to the other insurer for defense and indemnity.

However, this provision does not apply to the extent that you have agreed in a written contract or written agreement that this insurance is primary and non-contributory with the additional insured's own insurance.

(4) Duties in The Event Of Accident, Claim, Suit or Loss

If you have agreed in a written contract or written agreement that another person or organization be added as an additional insured on your policy, the additional insured shall be required to comply with the provisions in LOSS CONDITIONS 2. - DUTIES IN THE EVENT OF ACCIDENT, CLAIM, SUIT OR LOSS – OF SECTION IV – BUSINESS AUTO CONDITIONS, in the same manner as the Named Insured.

E. Primary and Non-Contributory if Required by Contract

Only with respect to insurance provided to an additional insured in 1.D. - Additional Insured If Required by Contract, the following provisions apply:

(3) Primary Insurance When Required By Contract

This insurance is primary if you have agreed in a written contract or written agreement that this insurance be primary. If other insurance is also primary, we will share with all that other insurance by the method described in Other Insurance 5.d.

(4) Primary And Non-Contributory To Other Insurance When Required By Contract

If you have agreed in a written contract or written agreement that this insurance is primary and non-contributory with the additional insured's own insurance, this insurance is primary and we will not seek contribution from that other insurance.

Paragraphs (3) and (4) do not apply to other insurance to which the additional insured has been added as an additional insured.

When this insurance is excess, we will have no duty to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, by the method described in Other Insurance 5.d.

2. AUTOS RENTED BY EMPLOYEES

Any "auto" hired or rented by your "employee" on your behalf and at your direction will be considered an "auto" you hire.

The OTHER INSURANCE Condition is amended by adding the following:

If an "employee's" personal insurance also applies on an excess basis to a covered "auto" hired or rented by your "employee" on your behalf and at your direction, this insurance will be primary to the "employee's" personal insurance.

3. AMENDED FELLOW EMPLOYEE EXCLUSION

EXCLUSION 5. - FELLOW EMPLOYEE - of SECTION II - LIABILITY COVERAGE does not apply if you have workers' compensation insurance in-force covering all of your "employees".

Coverage is excess over any other collectible insurance.

4. HIRED AUTO PHYSICAL DAMAGE COVERAGE

If hired "autos" are covered "autos" for Liability Coverage and if Comprehensive, Specified Causes of Loss, or Collision coverages are provided under this Coverage Form for any "auto" you own, then the Physical Damage Coverages provided are extended to "autos" you hire or borrow, subject to the following limit.

The most we will pay for "loss" to any hired "auto" is:

- (1) \$100,000;
- (2) The actual cash value of the damaged or stolen property at the time of the "loss"; or
- (3) The cost of repairing or replacing the damaged or stolen property,

whichever is smallest, minus a deductible. The deductible will be equal to the largest deductible applicable to any owned "auto" for that coverage. No deductible applies to "loss" caused by fire or lightning. Hired Auto Physical Damage coverage is excess over any other collectible insurance. Subject to the above limit, deductible and excess provisions, we will provide coverage equal to the broadest coverage applicable to any covered "auto" you own.

We will also cover loss of use of the hired "auto" if it results from an "accident", you are legally liable and the lessor incurs an actual financial loss, subject to a maximum of \$1000 per "accident".

This extension of coverage does not apply to any "auto" you hire or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited liability company), or members of their households.

5. PHYSICAL DAMAGE - ADDITIONAL TEMPORARY TRANSPORTATION EXPENSE COVERAGE

Paragraph A.4.a. of SECTION III - PHYSICAL DAMAGE COVERAGE is amended to provide a limit of \$50 per day and a maximum limit of \$1,000.

6. LOAN/LEASE GAP COVERAGE

Under SECTION III - PHYSICAL DAMAGE COVERAGE, in the event of a total "loss" to a covered "auto", we will pay your additional legal obligation for any difference between the actual cash value of the "auto" at the time of the "loss" and the "outstanding balance" of the loan/lease.

"Outstanding balance" means the amount you owe on the loan/lease at the time of "loss" less any amounts representing taxes; overdue payments; penalties, interest or charges resulting from overdue payments; additional mileage charges; excess wear and tear charges; lease termination fees; security deposits not returned by the lessor; costs for extended warranties, credit life Insurance, health, accident or disability insurance purchased with the loan or lease; and carry-over balances from previous loans or leases.

7. AIRBAG COVERAGE

Under Paragraph B. EXCLUSIONS - of SECTION III - PHYSICAL DAMAGE COVERAGE, the following is added:

The exclusion relating to mechanical breakdown does not apply to the accidental discharge of an airbag.

8. ELECTRONIC EQUIPMENT - BROADENED COVERAGE

a. The exceptions to Paragraphs B.4 - EXCLUSIONS - of SECTION III - PHYSICAL DAMAGE COVERAGE are replaced by the following:

Exclusions **4.c.** and **4.d.** do not apply to equipment designed to be operated solely by use of the power from the "auto's" electrical system that, at the time of "loss", is:

- (1) Permanently installed in or upon the covered "auto";
- (2) Removable from a housing unit which is permanently installed in or upon the covered "auto";
- (3) An integral part of the same unit housing any electronic equipment described in Paragraphs (1) and (2) above; or

- (4) Necessary for the normal operation of the covered "auto" or the monitoring of the covered "auto's" operating system.

b. Section III – Version CA 00 01 03 10 of the Business Auto Coverage Form, Physical Damage Coverage, Limit of Insurance, Paragraph C.2 and Version CA 00 01 10 01 of the Business Auto Coverage Form, Physical Damage Coverage, Limit of Insurance, Paragraph C are each amended to add the following:

\$1,500 is the most we will pay for "loss" in any one "accident" to all electronic equipment (other than equipment designed solely for the reproduction of sound, and accessories used with such equipment) that reproduces, receives or transmits audio, visual or data signals which, at the time of "loss", is:

- (1) Permanently installed in or upon the covered "auto" in a housing, opening or other location that is not normally used by the "auto" manufacturer for the installation of such equipment;
- (2) Removable from a permanently installed housing unit as described in Paragraph 2.a. above or is an integral part of that equipment; or
- (3) An integral part of such equipment.

c. For each covered "auto", should loss be limited to electronic equipment only, our obligation to pay for, repair, return or replace damaged or stolen electronic equipment will be reduced by the applicable deductible shown in the Declarations, or \$250, whichever deductible is less.

9. EXTRA EXPENSE - BROADENED COVERAGE

Under Paragraph A. - COVERAGE - of SECTION III - PHYSICAL DAMAGE COVERAGE, we will pay for the expense of returning a stolen covered "auto" to you.

10. GLASS REPAIR - WAIVER OF DEDUCTIBLE

Under Paragraph D. - DEDUCTIBLE - of SECTION III - PHYSICAL DAMAGE COVERAGE, the following is added:

No deductible applies to glass damage if the glass is repaired rather than replaced.

11. TWO OR MORE DEDUCTIBLES

Under Paragraph D. - DEDUCTIBLE - of SECTION III - PHYSICAL DAMAGE COVERAGE, the following is added:

If another Hartford Financial Services Group, Inc. company policy or coverage form that is not an automobile policy or coverage form applies to the same "accident", the following applies:

- (1) If the deductible under this Business Auto Coverage Form is the smaller (or smallest) deductible, it will be waived;
- (2) If the deductible under this Business Auto Coverage Form is not the smaller (or smallest) deductible, it will be reduced by the amount of the smaller (or smallest) deductible.

12. AMENDED DUTIES IN THE EVENT OF ACCIDENT, CLAIM, SUIT OR LOSS

The requirement in LOSS CONDITIONS 2.a. - DUTIES IN THE EVENT OF ACCIDENT, CLAIM, SUIT OR LOSS - of SECTION IV - BUSINESS AUTO CONDITIONS that you must notify us of an "accident" applies only when the "accident" is known to:

- (1) You, if you are an individual;
- (2) A partner, if you are a partnership;
- (3) A member, if you are a limited liability company; or
- (4) An executive officer or insurance manager, if you are a corporation.

13. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

If you unintentionally fail to disclose any hazards existing at the inception date of your policy, we will not deny coverage under this Coverage Form because of such failure.

14. HIRED AUTO - COVERAGE TERRITORY

Paragraph e. of GENERAL CONDITIONS 7. - POLICY PERIOD, COVERAGE TERRITORY - of SECTION IV - BUSINESS AUTO CONDITIONS is replaced by the following:

- e. For short-term hired "autos", the coverage territory with respect to Liability Coverage is anywhere in the world provided that if the "insured's" responsibility to pay damages for "bodily injury" or "property damage" is determined in a "suit," the "suit" is brought in the United States of America, the territories and possessions of the United States of America, Puerto Rico or Canada or in a settlement we agree to.

15. WAIVER OF SUBROGATION

TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US - of SECTION IV - BUSINESS AUTO CONDITIONS is amended by adding the following:

We waive any right of recovery we may have against any person or organization with whom you have a written contract that requires such waiver because of payments we make for damages under this Coverage Form.

16. RESULTANT MENTAL ANGUISH COVERAGE

The definition of "bodily injury" in SECTION V-DEFINITIONS is replaced by the following:

"Bodily injury" means bodily injury, sickness or disease sustained by any person, including mental anguish or death resulting from any of these.

17. EXTENDED CANCELLATION CONDITION

Paragraph 2. of the COMMON POLICY CONDITIONS - CANCELLATION - applies except as follows:

If we cancel for any reason other than nonpayment of premium, we will mail or deliver to the first Named Insured written notice of cancellation at least 60 days before the effective date of cancellation.

18. HYBRID, ELECTRIC, OR NATURAL GAS VEHICLE PAYMENT COVERAGE

In the event of a total loss to a "non-hybrid" auto for which Comprehensive, Specified Causes of Loss, or Collision coverages are provided under this Coverage Form, then such Physical Damage Coverages are amended as follows:

- a. If the auto is replaced with a "hybrid" auto or an auto powered solely by electricity or natural gas, we will pay an additional 10%, to a maximum of \$2,500, of the "non-hybrid" auto's actual cash value or replacement cost, whichever is less,
- b. The auto must be replaced and a copy of a bill of sale or new lease agreement received by us within 60 calendar days of the date of "loss,"

- c. Regardless of the number of autos deemed a total loss, the most we will pay under this Hybrid, Electric, or Natural Gas Vehicle Payment Coverage provision for any one "loss" is \$10,000.

For the purposes of the coverage provision,

- a. A "non-hybrid" auto is defined as an auto that uses only an internal combustion engine to move the auto but does not include autos powered solely by electricity or natural gas.
- b. A "hybrid" auto is defined as an auto with an internal combustion engine and one or more electric motors; and that uses the internal combustion engine and one or more electric motors to move the auto, or the internal combustion engine to charge one or more electric motors, which move the auto.

19. VEHICLE WRAP COVERAGE

In the event of a total loss to an "auto" for which Comprehensive, Specified Causes of Loss, or Collision coverages are provided under this Coverage Form, then such Physical Damage Coverages are amended to add the following:

In addition to the actual cash value of the "auto", we will pay up to \$1,000 for vinyl vehicle wraps which are displayed on the covered "auto" at the time of total loss. Regardless of the number of autos deemed a total loss, the most we will pay under this Vehicle Wrap Coverage provision for any one "loss" is \$5,000. For purposes of this coverage provision, signs or other graphics painted or magnetically affixed to the vehicle are not considered vehicle wraps.

Policy Number: VCGP025479
Insured Name: Zetron Inc.
Number: 42

CG 24 04 12 19

Effective Date: 04/01/2020

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**WAIVER OF TRANSFER OF RIGHTS OF RECOVERY
AGAINST OTHERS TO US (WAIVER OF SUBROGATION)**

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

Schedule
Name Of Person(s) Or Organization(s): Any person or organization you have agreed in a written and executed contract, prior to an "occurrence", that you would provide such person or organization a waiver of transfer of rights of recovery against others to us on your policy.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of Section IV – Conditions:

We waive any right of recovery against the person(s) or organization(s) shown in the Schedule above because of payments we make under this Coverage Part. Such waiver by us applies only to the extent that the insured has waived its right of recovery against such person(s) or organization(s) prior to loss. This endorsement applies only to the person(s) or organization(s) shown in the Schedule above.

All other terms and conditions of this Policy remain unchanged.

Policy: VCGP025479
Insured Name: Zetron Inc.
Number: 25

VE 04 36 06 14
Effective Date: 04/01/2020

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

60 DAYS NOTICE OF CANCELLATION

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

Paragraph **2.** of section **A. Cancellation** in the Common Policy Conditions is deleted and replaced by the following:

- 2.** We may cancel this policy by mailing or delivering to the first Named Insured written notice of cancellation at least:
 - a.** 10 days before the effective date of cancellation if we cancel for nonpayment of premium; or
 - b.** 60 days before the effective date of cancellation if we cancel for any other reason.

State	Zetron Authorized NASPO Reseller (Dealer) Name	Address	City	State	Zip	Phone Number	Contact Person	Contact Number	Contact Email	MWBE Status
AK	REVL Communications and Systems	650 W 58th Avenue Ste J	Anchorage	AK	99518	(907)563-8302	Seth Burris	907-563-8302	revisale@revlin.net	N/A
AL	Hurricane Electronics	201 West Lee Street	Mobile	AL	36611	(251)476-4000	Dirk Young	251-476-4000	dyoung@heonline.net	N/A
AR	DCS Radio Communications, Inc.	6637 Old Harrison Lane	Fort Smith	AR	72916	(479)-646-6445	Ken Kennedy	479-646-6445	kennedy@dcsradio.com	Woman Owned
AR	Smith Two-Way Radio, Inc.	520 N. College Ave.	Fayetteville	AR	72701	479-443-2222	Terry Griffin	479-530-5313	smith2wayr@aol.com	N/A
CA	Applied Technology Group	4440 Easton Dr	Bakersfield	CA	93309	(661) 322-8650	Lori Barnes	(661) 322-8650	lbarnes@atginternet.com	WMBE# 991S1003
CA	Twotree Inc dba American Radio	5125 Lovelock Street	San Diego	CA	92110	(619) 239-5020	Wynelle Ririe	(619) 239-5020	accounting@americanradio.com	N/A
CA	CAZCOM, Inc. dba Hi-Desert Communications	17181 Jasmine Street	Victorville	CA	92395	760-243-2332	C.A."Skir" Zwarkowski	760-243-2332	ski@cazcom.org	Micro/CA
CA	Cooks Communications	160 N Broadway	Fresno	CA	93701	(559) 269-0517	Derek Marchini	(559) 269-0517	Derek@cookscom.com	N/A
CA	Delta Wireless, Inc.	1700 W. Fremont Street	Stockton	CA	95203	(209) 948-9611	Jurgen Meyer	209-948-9611	jmeyer@deltawireless.com	N/A
CA	FootHill Communications	133 N. San Gabriel Blvd., #206	Pasadena	CA	91107	(626) 744-9292	Kenji Luster	(626) 744-9292	kenji@foothillcommunications.com	N/A
CA	Ten-Four Communications	1123 Fifth St	Modesto	CA	95351	(209) 529-9967	Nathan Hansen	(209) 529-9967	sales@ten-four.com	N/A
CT	Utility Communications, Inc.	920 Sherman Ave.	Hamden	CT	6514	(203)287-1306	Ed Abrams	(203)671-9389	eda@utilitycommunications.com	N/A
FL	Communications International	4450 Highway 1	Vero Beach	FL	32967	772-978-4111	Henry Erfurt	772-978-4111	herfurt@ask4ci.com	N/A
FL	Williams Comm	5046 Tennessee Capital Boulevard	Tallahassee	FL	32303	850-385-1121	Bryan Kocher	850-385-1121	kocherb@wmscom.com	N/A
FL	Communications International	564 Isaac Smith Road	Goldsboro	NC	27530	919-735-9200	Shane Kilpatrick	772-978-4111	skilpatrick@ask4ci.com	N/A
GA	Dean's Commercial Two-Way	PO Box 489	Cataula	GA	31804	706-317-4121	Dean Ginn	706-317-4121	dginn@deanstwoway.com	N/A
GA	Monroe Comm	570 Pafford Rd	Waycross	GA	31501	912-285-8491	Mike Monroe	912-285-8491	mcom@mediastreamus.net	N/A
IA	RACOM	201 West State St	Marshalltown	IA	50158	319-330-4414	Terry Brennan	319-330-0937	terry.brennan@racom.net	N/A
ID	All Wireless Communications, Inc.	1112 Oakley Ave	Burley	ID	83318-1538	208.878.3537	Mike Butler	(208) 878-3537	mike@mrkrlc.us	N/A
ID	White Cloud Communications	663 Main Ave E	Twin Falls	ID	83301	(208) 733-5470	Ken Jackson	(208) 733-5470	ken@whitecloudcom.com	N/A
IL	Novacom, Inc.	100 S 13th Street, PO BOX 578	Herrin	IL	62948	618-988-1661	Brandon Watson	618-988-1661	brandon@novacomwireless.com	N/A
IL	Global Technical Systems, Inc.	2270 W. Mortan Ave.	Kacksonville	IL	62650	217-243-4874	Chris Ginder	217-370-7495	cginder@globaltechsys.com	N/A
IL	Radicom	2604 N. Chapel Hill Rd	McHenry	IL	60051	815-385-4224	Cliff Hammerstorm	847-417-3630	chammar@radicom.com	N/A
IL	Ragan Communications	2 Ragan Ct.	Washington	IL	61671	309-745-9386	Neal Ragan	309-253-9386	ragancom@comcast.net	N/A
IN	J&K Communications	222 S. Tower View Dr.	Columbia City	IN	46725	(260) 244-7975	Ted Hurley	260-244-7975	thurley@jkcomm.com	N/A
KS	Ka-Comm., Inc.	326 S. Clark Street	Salina	KS	67401	(785) 827-8555	Craig Fischer	785-827-8555 ext 112	cfischer@ka-comminc.com	N/A
KS	Mobile Radio Service	156 S Hwy 281	Great Bend	KS	67530	(620) 793-5443	Donna Petz	(620) 282-3354	donna.petz@mobileradiosvc.com	N/A
KY	Don's Mobile Radio Co., Inc.	120 Hubbard Lane	Henderson	KY	42420	(812) 424-5140	Donald Lee Garrett	(812) 305-0164	mobrario2@att.net	N/A
KY	Jackson Purchase Two Way Radio	1201 S. 3rd	Paducah	KY	42003	(270) 443-5604	Joey Watkins	(270) 443-5604	joey@ip2way.com	N/A
KY	London Radio Service	706 Catching St.	London	KY	40741	(606) 878-8012	Stewart Walker	(606) 682-1368	sowalker@windstream.net	N/A
KY	Radio Communications Systems, Inc.	4445 Robards Lane	Louisville	KY	40218	(502) 587-7384	Amy Torres	(502) 587-7384	Atorres@rcs.info	N/A
LA	Louisiana Radio Communications, Inc.	201 Breakwater Dr.	Lafayette	LA	70507	337-267-4476	Blane Nave	337-230-3901	bnave@lrwireless.com	N/A
MA	All Comm Technologies	5 Whitmore Road	Revere	MA	2151	781-289-3000	Paul Boudreau	781-289-3000	pboudreau@allcomm1.com	N/A
MD	Pine Hill Electronics	2750 Kays Mill Rd	Finksburg	MD	21048	410-833-1422	David Yingling	410-833-1422	dhyingling@rcn.com	N/A
MO	A & W Communications, Inc.	P.O. Box 66, 100 N. Main Street	Eolia	MO	63344	(573) 485-3500	Tom White	800-530-5763	twhite@aw-comm.com	Veteran Owned
MO	Radiophone Engineering	534 West Walnut	Springfield	MO	65806	417-862-6653	John George	417-862-6653	john@radiophonewireless.com	N/A
MT	Vivtech, LLC d.b.a. TAB Electronics	PO BOX 1346	Glendive	MT	59330	(406) 365-4310	Eric Steele	(406) 365-4310	tabelect@midrivers.com	N/A
MT	Highline Communications	202 N Central Ae	Cut Bank	MT	59427	406-873-2984	Jacob McKelvey	406-873-2984	jacob@highcomm.biz	N/A
MT	Dunne Communications	204 E Commercial Ave	Anaconda	MT	59711	406-563-7115	Tom Dunne	406-560-1012	tpdunne@rfwave.net	N/A
MT	Industrial Communications and Electronics	PO BOX 31632	BILLINGS	MT	59107	406-259-1212	Brian Mehus	406-259-1212	brian.mehus@icem.com	N/A
MT	Univision Computers	2801 S. Russell ST	Missoula	MT	59801	406-721-8806	Jim Green	406-370-2306	jim@univisioncomputers.com	N/A
NH	2 Way Communications Service, Inc.	19 Durham Street	Portsmouth	NH	3801	603-431-6288	Christopher Tweedie	603-431-6288	ctweedie@2-way.biz	N/A
NJ	Tactical Public Safety	1036 Industrial Drive	West Berlin	NJ	8091	856-768-3336	John Hobbs	856-768-3336	john.hobbs@tacticalpublicsafety.com	N/A
NM	Advanced Communications	2417 Baylor Dr SE	Albuquerque	NM	87106	(505) 244-3321	Lori Moore	(505) 244-3321	lmoore@advtwo-way.com	N/A
NY	Finger Lakes Communications	305 Clark Street	Auburn	NY	13021	(315)252-9478	Jeff Willis	315-252-9478	jwillis@fingerlakescomm.com	N/A
NY	JPJ Electronics Comm. Inc.	1 W Whitesboro ST	Yorkville	NY	13495	(315)733-8495	Renee L. Reade	315-733-8495		N/A
OH	B&C Communications	1740 Harmon Ave Ste F	Columbus	OH	43223	(614) 276-5552	Steve Stauch	614-276-5552	sstauch@bandccomm.com	N/A
OH	Communications Service	250 Fairgrounds Rd	Painesville	OH	44077	440-354-3715	Judd Spaulding	440-567-1856	jbs@comm-serv.com	N/A
OH	HEC Electronics dba Advanced Radio Technology	6170 Interstate Cir.	Cincinnati	OH	45242	(513) 489-5575	Scott Price	513-489-5575	sprice@aradiotech.com	N/A
OH	Hudson Communications, LLC	84 Stanhope Kellogsville, Rd.	Pierpont	OH	44082	(440) 994-9932	Amanda Hudson	444-442-6667 X702	customerservice@hudson-comm.com	N/A
OK	Stolz Telecom LLC	6825 Camille Avenue	Oklahoma City	OK	73149	405.632.2262	Robert Stolz	405.632.2262 x1002	Rob@StolzTelecom.com	Woman Owned
OR	Silke Communications	680 Tyler Street	Eugene	OR	97402	541-687-1611	Starsky Brolin	541-510-7488	starsky@silkecom.com	Minority Owned
TN	Perigo Communications, LLC	75 Store Front Drive	Erin	TN	37061	(931) 289-2202	Jeff Perigo	(931) 896-3998	jeff@perigocommunications.com	N/A
TN	Area Wide Communications	375 West Church Street	Medina	TN	38355	731-783-5380	Ray Roberts	731-783-5380	ray@areawidecomm.com	N/A
TN	GeoConex	6923 Maynardville Hwy	Knoxville	TN	37918	865-686-0411	Craig Dotson	865-686-0411	Craig.Dotson@geoconex.com	N/A
TX	Northwest Communications Inc.	10818 Barely Lane, Suite B	Houston	TX	77070	281-890-4724	Don Cameron	281-890-4724	doncameron@nwradio.us	Woman Owned
TX	Stolz Telecom	11555 Highway 380 West, STE 102	Krum	TX	76249	(972) 465-9299	Rob Stolz	(405) 632-2262	Rob@StolzTelecom.com	Women Owned
UT	Strategic Communications	7904 S 1530 W	West Jordan	UT	84088	801-999-4292	Michael Bain	801-999-4292	mike@scmmnsolutions.com	N/A
WA	Business Radio, Inc.	205 N. Volland	Kennewick	WA	99336	(509) 783-9592	Bill Holesworth Jr.	(509) 783-9592	billj@bizrad.com	Veteran Owned Business
WA	Valence Wireless & Communications	17816 E. Sprague Ave.	Spokane Valley	WA	99016	509-927-4777	Michael Deakins	509-953-6259	mdeakins@valencewireless.com	Veteran Owned
WV	Miller Communications, Inc.	One Wireless Way-Suite 100	Parkersburg	WV	26101	304-863-3323	Randolph S. Kinsolving	304-863-3323	christinec@millercomm.com	N/A
WV	GANOE ENTERPRISES	PO Box 686	Augusta	WV	26704	304-496-8818	Greg Gano	304-496-8818	ggano@frontiernet.net	N/A

ZETRON[®]
ADVANTAGE

40
YEARS
ZETRON[®]

Celebrating **four decades** of mission critical communications
quality, innovation and service



Zetron Celebrates 40 Years Serving Mission Critical Communications Customers Around the Globe

Press Release:

Redmond, WA. November 18, 2020 – [Zetron](#), a global leader in [integrated mission critical communications](#) technology, today announced the company's milestone 40th anniversary of providing communications solutions to customers in public safety, transportation, utilities, and other markets. Zetron was founded in November of 1980, by Milt Zeuschel and John Reece as a small regional paging business. The company has since become a recognized leader in quality and interoperability for mission critical communications systems and services, maintaining a worldwide customer base and a comprehensive portfolio of innovative solutions used to serve hundreds of millions of people.

Over four decades, Zetron has led innovation in various industries with a number of firsts, including launching paging products for volunteer fire departments in 1981; bringing the first user programmable microprocessor-based radio dispatch console to market in 1987; the first public safety company to manufacture both radio dispatch and 9-1-1 call taking solutions in 1996; and being the first vendor to support the P25 CSSI in 2007.

"Zetron was founded in 1980 as a small business committed to providing high quality solutions and extraordinary customer service," said Brent Dippie,

President and CEO of Zetron. "After 40 years our most significant accomplishment and sincere privilege has been relentlessly serving and earning the enduring trust of customer organizations where coordinated communications are the heartbeat of critical operations and services."

A 31 year veteran of Zetron, Mr. Dippie held numerous positions with the company prior to his current leadership role. He attributes his tenure to consistently identifying and relating with the corporate culture centered on a passion for supporting the critical services and personnel that serve us all.

"I believe our staying power is largely attributable to the importance we've always placed on establishing long term relationships with customers, partners and employees," Dippie added. "When fairness, respect and appreciation are foundational, longevity often follows. While we've obviously come a long way from our beginnings, we remain passionately grateful and humbled for the opportunity to work with the resilient, devoted and courageous people who so often selflessly put the safety and welfare of the communities and public they serve first."

Zetron Customers Across Seven Continents

Zetron solutions are used at over 40,000 critical communications console positions in more than 100 countries, and on all seven continents. Customers range from single position rural emergency communications centers, to large metropolitan agencies and commercial command and control centers serving millions of people in public safety, transportation, utilities, healthcare, education, and other critical communications markets. Customers include:

- **Public Safety** - The Iowa Department of Homeland Security and Emergency Management powers Iowa's statewide Next Generation 9-1-1 solution. Zetron's MAX Call Taking is the emergency call handling standard, delivered as a shared service in a continually growing number of the state's 113 Public Safety Answering Points. Other public safety customers include Oklahoma Department of Public Safety, Arizona Department of Public Safety, Kitsap County (WA), Greene County (NY), Bonnyville Regional Fire Authority (Alberta, Canada), New York State Police, and Delhi Police (India).
- **Transportation** - The Sydney Airport in Australia has been a customer since 2005. Zetron's ACOM system is used to help 41 million people traveling through the airport each year arrive safely and on-time to their destinations. Other transportation customers include Dubai Airport, Delta Air Lines, Air Canada, Yarra Trams (AUS), New York Metropolitan Transportation Authority, and Port Authority of New York and New Jersey.
- **Utilities** - Powerco is New Zealand's second largest utility provider, where Zetron solutions help the company provide electric and gas service to 442,000 homes, businesses, and organizations across New Zealand's North Island. Other utilities customers include Iberdrola (Spain), Puget Sound Energy (WA), AVANGRID (USA), Alliant Energy (WI), and Potomac Electric Power Company (DC).
- **Other Markets** - The Australian federal government relies on ACOM for communications with and between field research stations and personnel in Antarctica, one of the most extreme and rugged climates on the planet. Other customers include the US Coast Guard, Gonzaga University, Iowa Department of Corrections, and North Mississippi Medical Center.

Partners Are Key to Success

Developing key value-add strategic partnerships has been crucial to Zetron successfully navigating, growing and innovating over 40 years. The company maintains numerous industry relationships (e.g., NENA, APCO, UTC, ITS, TCCA, and many more), enabling Zetron to influence and stay current on market standards and direction. Zetron also enjoys long standing technology relationships with leading complementary technology vendors (e.g., JVCENWOOD, L3Harris, Tait Communications, RapidSOS, Eventide, and many more) that provide integrated best in class functionality and interoperability for Zetron solutions.

Additionally, the extensive channel partner network developed over 40 years extends the company's ability to provide local sales and services footprints. Specialized regional support for landmark business has also been a key benefit. For example, Zetron partner RACOM has been instrumental in winning and successfully deploying a statewide Next Generation 9-1-1 Shared Services contract in Iowa.

About Zetron, Inc.

Zetron has been a trusted provider of mission critical communications systems since 1980. It is ALL we do. With a comprehensive portfolio of technology solutions, including integrated next generation call taking, dispatch, CAD, mapping, fire station alerting, logging/reporting systems and more, Zetron is relied on by communications centers in public safety, transportation, utilities, healthcare, and other markets on all seven continents of the world. Zetron's relentless pursuit of quality, durability and interoperability has made it one of the most enduring and consistently trusted brands in mission critical communications for 40 years. Our solutions are backed by world class technical support, training, project management and professional services, as well as a global network of highly capable partners and system integrators dedicated to exceeding the unique needs of Zetron customers. Zetron is a wholly owned subsidiary of JVCENWOOD Corporation. For more information, visit:

www.zetron.com



The Future of Utilities Field Crew Safety

Powerco's New Digital Mobile Radio (DMR) Platform

Bringing warmth, comfort, and security to 1.1 million utility customers

Keeping the lights on and the gas flowing to 442,000 homes, businesses, and organizations across New Zealand's North Island is no easy task. However, as the country's second largest utility provider, Powerco prides itself on safety and reliability for all. That includes fault crews in the field every day working alongside nine networks of electricity and gas lines.

But as the company's needs changed, emergency communication became an issue with the electricity network. Powerco Network Operations Manager Phil Marsh explains, "In the past, when we used the RT system that had a far smaller reach, we had fault staff needing to drive for half an hour to the top of a hill to get coverage so they could contact the control room. There were places in areas such as the Tararuas, Wairarapa and Rangitikei where they simply didn't have any comms or cell phone coverage – losing all communication with the control room, which is dangerous, particularly in an emergency."

Echoing Marsh's statements, Powerco's primary field services provider also understood the need to act. "When working with electricity, it is vital to be able to quickly and reliably contact those controlling the electricity network if there is an emergency, without worrying about black spots affecting radio coverage," said John Batchelor, General Manager Power and Gas, at Downer New Zealand.

Mitigating the hazards for field personnel with clear, reliable, communications coverage

With the vision of providing a safer working environment as a clear goal, Powerco set out to design a digital radio system capable of ensuring at least 90% coverage across the company's expansive work zones. Other key criteria included enabling the company to retain control over the network, and improve efficiency, while ultimately prioritizing its field staff's access to communications at Powerco's Network Operations Center.

Partnering with technology innovators to develop New Zealand's largest industry standard, private digital mobile radio network

After evaluating equipment options from multiple communications providers, Powerco chose Zetron's ACOM Command & Control System to drive the company's 32-position console system and complement its new fleet of Hytera DMR 3 VHF radios. While there were other solutions the company considered, the ACOM system checked all the boxes. Aside from its highly customizable touch screen display, the system supported multiple simultaneous active calls, included visual and audio alerts, and provided Powerco staff the ability to leverage advanced features, such as Bluetooth, encrypted messaging, and SIP gateways, in addition to request-to-talk (RTT) and press-to-talk (PTT) communications. Adding an Eventide Voice Recorder and Surveyor Manager Reporting System added extra desired functionality to the overall solution.

Since deploying the new ACOM system, NOC operators have increased their overall call handling efficiency by **50% to 70% percent.**

“Zetron performed a proof-of-concept at Powerco’s site, which gave the Powerco evaluation team the insight and confidence that Zetron was the right fit,” explained Marsh.

Deploying 32 position ACOM-supported connections

The project kicked off with Zetron and Hytera establishing a regional joint testing facility in nearby Brisbane. Technicians from both companies worked to install and integrate the new DMR system with the assistance of Powerco’s engineers and lead project manager. Upon successful testing, the equipment was shipped and deployed to Powerco facilities in New Plymouth and Tauranga. From there, Zetron led training workshops for Powerco staff, including two “super user” members of the company’s original design team.

The system went live with zero unplanned customer or service outages. Powerco executives described the implementation as “round smooth,” with minor challenges promptly addressed and successfully managed by the Zetron team and other suppliers.

Boosting safety and efficiency across New Zealand’s North Island

Soon after deployment, the ACOM system underwent its first real test. Major storms battered the North Island and cut power to thousands of Powerco customers. But this time was different. Because of the new Digital Radio System, the company was better prepared to navigate the challenges.

In the past, the company’s Network Operation Center would activate a storm room with additional operators on-hand to manage the call overflow. But with the increased operational efficiencies provided by the new system, Powerco staff members were able to tackle the call volume without incident, and without needing to activate the storm room.

“There were four separate storm events in December, and three of those were after we moved in. It was probably the worst December I can remember for lightning strikes. We had 700 strike faults to take care of and had to replace 75 transformers,” Marsh recalled.

In fact, since deploying the new ACOM system, the company reports NOC operators have increased their overall call handling efficiency by 50% to 70% percent.

“Powerco now has coverage in some remote parts of New Zealand that no other provider of mobile or radio has. We are set up for the future,” Marsh said.

Going forward, Powerco plans on exploring AVL technology. But for now, the company’s customers, executives, staff members, and line crews can rest easy knowing the ACOM system and new digital radios provide a safer and more efficient working environment for all while empowering the company mission of delivering New Zealand’s energy future.

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Wellness & Peer Support
Programs for Emergency
Services Professionals

[View Webinar](#)

Product Focus:

MAX

Fire Station Alerting

Get the Info Sheet



Zetron's new MAX Fire Station Alerting system offers a scalable and affordable solution for enhancing the public safety dispatch capabilities of Emergency Communications Centers (ECCs). Featuring a wide range of innovative alerting, automation, and operational monitoring/management functions, MAX Fire Station Alerting is deployed either stand alone, as an integrated component of a full communications platform with MAX Dispatch, MAX Call Taking, MAX CAD, or alongside existing dispatch/CAD systems from other vendors.

MAX Fire Station Alerting is more than just alerting. It offers ECCs capability along with flexibility. It's highly configurable to meet the unique needs of each agency, interoperable to work with other/existing systems, and valuable for improving public safety dispatch efficiency and situational awareness. But that just scratches the surface. Take a closer look and see ALL the ways

MAX Fire Station Alerting helps public safety emergency services respond faster and arrive smarter.

On The Ice in Antarctica:

ACOM delivers communications for research stations in the most extreme conditions and rugged terrain in the world.



Zetron's Video Tech Talk

on MCPTT Integration for ECCs



Quality Assurance Program Services

Better understand the benefits of maintaining a professional QA program and alternatives to having to do it all yourself.





Press Releases

November 18, 2020

[Zetron Celebrates 40 Years Serving Mission Critical Communications Customers Around the Globe](#)

August 6, 2020

[Zetron Hosting Peer Support and Wellness Webinar for Public Safety Emergency Services Professionals](#)

July 29, 2020

[Zetron Launches New MAX Fire Station Alerting Solution to Improve Emergency Response Time and Preparedness](#)



Upcoming Events

December 8, 2020

[MN Sherrif's Winter Conference Virtual Expo](#)

December 10, 2020

[ZMUG Event](#)

March 1, 2021

[CalNENA Virtual Conference](#)



Are you a Zetron MAX Dispatch, MAX Call Taking or MAX CAD user?

If so, join our Zetron MAX User's Group (ZMUG) by emailing us at ZMUG@zetron.com or registering at www.zetron.com/zmug_registration



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@ZetronInc



ZetronInc



ZetronMedia

Location: Boxborough, MA

Product: MAX Dispatch



MAX Dispatch Opens the Door to Broadband PTT

The Zetron MAX Dispatch system recently installed for the Boxborough, Massachusetts, Police Department combines many operations onto the console, improves interoperability with other agencies, and can operate remotely over a laptop. It also supports broadband PTT functionality.

When Boxborough, Massachusetts, Police Chief Warren Ryder decided the time had come to update his department's communication technology, his first order of business was to obtain a new dispatch system. His wish list for the new system included things that are vital to public-safety operations: interoperability across different radio equipment, ongoing system health monitoring, ease of use and maintenance, and redundancy that ensures 24/7 operation.

The Zetron MAX Dispatch system Boxborough subsequently installed with the help of Zetron reseller All-Comm Technologies is making virtually all of Ryder's wishes for an effective, future-proof dispatch system come true.

Small is beautiful

Located 28 miles west of Boston, Boxborough has a population of about 5,000 and covers an area of just over 10 square miles. Despite being a stone's throw from Boston, Boxborough has retained much of its rural, down-home character. "It's a lovely, historical community, green and mostly agricultural" says Ryder. "There aren't many places like it in the state."

Updating Boxborough's Communication Center

The Boxborough PD Communication Center is the town's primary public safety answering point (PSAP) and dispatch center. As such, they answer the town's 9-1-1 calls and dispatch for the town's police, fire, public works, and regional animal control.

Ryder explains why he was looking to replace the center's existing dispatch system. "At 15-years old, it was based on old technology and wasn't providing the reliable operation we need."

The new equipment would have to be redundant, reliable, and able to support interoperability across multiple agencies. "If we have to block a road, get help from the fire department, or control a crowd, we need to be able to call in other departments and communities," says Ryder. "The new system would have to be able to help us do that."

Other things on Ryder's wish list included the ability to control the center's doors, alarms and alerts as well as the ability to monitor and adjust the server room temperature, all from the console. They needed the system to be able to support their impending move to a digital Tait Project 25 (P25) network infrastructure. The system would also need to connect to their existing analog infrastructure temporarily, then seamlessly migrate to the Tait system once it was up and running.

MAX Dispatch and All-Comm fill the bill

Ryder researched the latest-and-greatest dispatch systems on the market. Zetron's MAX Dispatch appeared to be the best system to fulfill his requirements at an affordable price. With this in mind, he called

“I love [MAX Dispatch]... It has all the interoperability, redundancy, system monitoring, and integrated capabilities I was hoping for.”

Warren Ryder,
Chief of Police & Director of Communications, Boxborough Police Department

All-Comm Technologies, a local Zetron vendor he'd never worked with before but had heard good things about. All-Comm Technologies president, Paul Boudreau, answered the call and immediately agreed to come to the center the very next day to give a presentation of MAX Dispatch.

Boudreau arrived the next afternoon armed with a laptop, some brochures, and a MAX Dispatch demo. The presentation he proceeded to give was a resounding success, and the decision was made. With All-Comm Technologies' help, Boxborough would obtain and install Zetron's MAX Dispatch.

Interviews and observations

The first step of the project involved interviewing and observing the center's dispatchers. "I wanted to talk to and observe them to understand what they do and what they need," says Delvis Javier, the All-Comm Technologies technical supervisor who oversaw the project. He would use this information to design a setup that would streamline and automate many of the agency's procedures.

System staging and review

All-Comm staged the system at their shop. "We set up the consoles, built the rack, and configured the screens based on the dispatchers' input," says Javier. "We also tied in all of the radios so we could demo its interoperability."

Another key feature they demonstrated during the staging and review was the system's impressive network redundancy.

"MAX Dispatch includes a main network and a standby, redundant network," Javier explains. "During the customer review, we disconnected the main network to let them see for themselves how standby automatically takes over and keeps things going as if nothing had happened. They really liked that feature."

'We've already got it all figured out'

Once the system was finalized and approved, it was taken to the communication center and installed in parallel with the center's existing system. The installation was completed without a hitch. Dispatcher training was next, but it turned out to be unnecessary. "We'd scheduled training to acquaint the dispatchers with the system," says Ryder. "But they said, 'There's no need; we've already got it all figured out.'"

3 connections to Tait system

Not long after the dispatch system installation was complete and operational, the new Tait infrastructure was set up. Javier says they made three redundant connections from the Zetron console to the Tait system. "One is a P25 DFSI [Digital Fixed Station Interface] connection. The second is a Tait analog line, and the third is an RF control that uses a Kenwood control station over the air. This gives them alternate ways to connect to the network if any of them should fail. One is in primary use; the others are just a click away."

One button, multiple pages

Boxborough's MAX Dispatch system also includes numerous features that have simplified their operations. For instance, dispatchers are now able to open doors from the console. They also receive visual/voice alerts whenever someone opens a front or back door, and many dispatching procedures are now more streamlined. "Previously, they had to send out separate pages for fire and police," says Javier. "To cut time, we put a single button on the screen so dispatchers could send simultaneous pages to both fire and police. This has shaved precious minutes off their response—a big deal to a communication center."

'These systems really come alive'

Ryder has generous praise for Boxborough's MAX Dispatch system and those who installed it. "I love it. I wouldn't change a thing. It has all the interoperability, redundancy, system monitoring, and integrated console capabilities I was hoping for. Plus, after the initial install, we added a remote laptop position that we can operate from anywhere. As far as maintenance goes, if anything comes up, I call Delvis, and he immediately dials in and walks me through how to fix it, fixes it himself, or sends someone out. All-Comm and Delvis are terrific. When you're working with people like that, these systems really come alive."

Ready for broadband PTT

What's next for Boxborough? Much, according to Ryder. "We're looking at how we might communicate over smartphones, even if we're out of radio range," he says.

The good news is that MAX Dispatch now supports broadband PTT through the P25 Console Subsystem Interface (CSSI).

For more information about support for broadband PTT in MAX Dispatch and AcomNOVUS, see: Zetron's Radio Dispatch-Broadband PTT Integration paper (<http://bit.ly/2j8Sh13>).

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Case Study

Location: Puget Sound Energy

Product: ACOM

75-position Zetron System Controls Operations at Puget Sound Energy



Photo courtesy of Puget Sound Energy.

The installation of a 75-position solution that seamlessly integrates Zetron's Advanced Communications (ACOM) system with Tait Communications' MPT 1327 trunked radio network was recently completed for Puget Sound Energy in Washington State.

Most of us take for granted the fact that with the mere flip of a switch, we can turn on the lights, the heat, or any number of devices that make our lives easier and more comfortable. We don't have to think about it because the utility companies that oversee these services are thinking about it for us.

Puget Sound Energy (PSE) is the utility responsible for delivering gas and electrical services throughout much of western Washington State. They provide electricity to more than a million customers and natural gas to 750,000 customers in a 6,000-square-mile area that comprises the largest metropolitan region north of San Francisco and west of Chicago.

Thanks to a recent major overhaul of the radio dispatch communications equipment PSE uses to manage their vast operations, they now have a new, state-of-the-art solution that combines Zetron's Advanced Communications (ACOM) console system with Tait's MPT 1327 trunked radio infrastructure. The result is a comprehensive solution that meets narrowbanding requirements, supports PSE's current operations, and provides the flexibility to expand and evolve along with PSE's needs well into the foreseeable future.

PSE's five service groups

PSE's dispatch communications are centralized at its Eastside Systems Operations (ESO) office located in Redmond, Washington.

The center consists of five service groups. On the electrical side, Crew Dispatch sends crews out to handle relatively minor issues—such as connecting a new meter, replacing a fuse, or securing a power line after a car has struck a power pole. Systems Operations manages the lower voltages of PSE's system. The Load Office oversees high-voltage areas such as substations and substation lines.

On the natural gas side, Gas Dispatch mobilizes crews and equipment in response to customer calls for service and gas emergencies such as outside leaks and breaks. Gas Control monitors and adjusts the pressure in the gas lines to ensure gas is flowing properly.

The functions each of these groups manages have the potential to involve varying degrees of danger, especially if they're handled incorrectly. That's why reliable, effective communications are so critical to PSE. And this is, in part, why PSE chose Zetron to participate in their recent communications equipment upgrade.

The power of partnership

Jiri Sykora, a senior radio engineer with PSE, says that PSE's relationship with Zetron dates back to the early 1990s when the utility first installed Zetron's button-based dispatch system. PSE

subsequently moved to Zetron CRT-based consoles. Then in 2005, they built a backup center and equipped it with Zetron's first IP-based dispatch consoles.

"Zetron's ongoing partnership with us has been instrumental in helping us move forward with our communications technology," says Sykora. "It has also given us great confidence in Zetron's products and services."

Meeting the mandate

The recent project began when PSE decided to install the equipment necessary to comply with the FCC's narrowbanding mandate. The utility issued a request for proposals (RFP) for the new radio infrastructure, dispatch console system, and mobile and portable radio units narrowbanding would require.

Zetron responded to the console component of the RFP with a bid featuring its ACOM system. Tait Communications submitted a proposal that included its MPT trunked network and another vendor's console system. Several other vendors also responded, but Zetron, Tait, and another network provider were the vendors that advanced to the next stage.

"Our dispatchers and project teams reviewed Zetron's console system and the console system included in Tait's bid," says Sykora. "They liked the Zetron console best because it's so flexible and easy to use. We also liked Tait's MPT network. So we asked Tait to redo their proposal based on their infrastructure and Zetron's ACOM system. We told them that if we liked the bid at that point, we'd sign off on it. And that's what we did."

The solution PSE chose included Tait's MPT 1327 trunked radio infrastructure and two fully redundant ACOM systems with 75 console positions that would be installed in PSE's main and backup centers and at remote locations throughout the Puget Sound region.

A four-phase installation

Sykora says that because of the project's scope, it was completed in four phases. "For the first phase, we installed a fully redundant ACOM system in the main center that would mimic the existing system," he explains. "The ACOM system was connected to PSE's legacy radio infrastructure. Tait's MPT infrastructure was also installed, but we didn't switch over to it at this stage."

"The second phase involved setting up in PSE's Backup Control Center a near-mirror image of the ACOM system we'd just installed in main center," he continues. "We also transitioned to the new MPT system. This was very easy. Because everything was in place, all the dispatchers had to do was switch to a new screen. For the third phase, 13 fully functional remotes were set up at PSE's nine sites located throughout Western Washington, from Bellingham to Olympia. And for the fourth and final phase, consoles for Gas Dispatch and Gas Control were brought online."

The elements of success

Despite the project's complexity and tight deadline, it was completed on time and on budget. "Everyone involved really pulled together and did a great job," says Zetron project manager, David Christy.

Veteran PSE engineer Robert Holt concurs. "Zetron was very good to work with," he says. "They listened to what we needed, then provided it."

The ease with which dispatchers adopted the new console equipment was yet another element of the project's success. "We were able to design the Acom screens to mimic our old ones, so our dispatchers would be able to continue to react instinctively and automatically," says Sykora. "This is especially important during an emergency."

The system also offers benefits PSE administrators hadn't anticipated. For example, it will allow them to integrate phones onto the console screens—an option they're currently considering. And because ACOM is modular, they will be able to expand it easily as they grow. ACOM's remote command-and-control capabilities will also allow PSE to run their system over laptops or PCs if the situation ever warrants it, giving them even greater flexibility to respond as circumstances dictate.

Regardless of how PSE utilizes the rich options their new ACOM system offers, it's clear that it has updated and strengthened PSE's communications capabilities and paved their way to the future. It has also added yet another success to PSE's ongoing partnership with Zetron.



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Module 1 – Core Networking Essentials Course Syllabus

Course Description

This course is designed for professionals seeking to build a foundation in fundamentals of computer networking for packet-switching data network technologies. You will be introduced to LAN and WAN concepts focusing on how to install, configure, operate, and troubleshoot networks. Key topics include fundamental networking protocols, routing and switching technologies with implementation and verification of connectivity to Local Area Network (LAN) and Wide Area Network (WAN) environments. You will learn how to implement different network address schemes. This course is geared toward the Cisco CCENT, CompTIA Net+ and the Microsoft MTA Networking Fundamentals industry certifications.

Topics Include:

- OSI reference model
- 802 standards and specifications
- Network Devices
- TCP/IP
- TCP Protocols
- IP Protocols
- Logical Addressing
- Subnetting and VLSM
- IP Communication (Broadcasting, Unicasting, IGMP/PIM)
- Network Analysis

Course Learning Objectives

Participants will gain an understanding of data networks to:

- Understand history and development of the networking industry
- Define network technology standards
- Comprehend networking terminology
- Identify network communication media
- Apply network device implementation into data networks
- Recognize TCP/IP protocol stack and it's inter-related communication methods
- Be aware of Internet protocol addressing for network infrastructures
- Understand subnetting major IP network classes
- Comprehend routing and switching concepts
- Identify router elements, commands and setup configurations
- Identify functions of non-routable and routed protocols
- Determine networking services supporting client/server networks and internetworking
- Become familiar with network simulations with implementation and configuration equipment
- Have familiarity with LAN support tools and resources for troubleshooting network problems
- Gain knowledge of network management tools used for troubleshooting
- Identify components of a LAN and type of network design most appropriate for a given site

Course Duration: 24 hours

Prerequisites: No course prerequisites

Course Outline and Proposed Class Schedule

Unit 1: Introduction (4 hours)

- History
- Terms
- Standards
- Network Devices

Unit 2: Data Communication (4 hours)

- Introduction to TCP/IP
- TCP/IP Protocols
- TCP/IP Communications

Unit 3: Configuring Networks (4 hours)

- Physical Addressing
- Logical Addressing
- Subnetting
- Variable-length Subnetting

Unit 4: Network Communications (4 hours)

- Routing Protocols
- Static and Dynamic Routes

Unit 5: LAN/WAN environments (4 hours)

- Creating LANs
- Creating WANs

Unit 6: Network Services and tools (4 hours)

- NAT
- PAT
- DNS
- DHCP
- Network Analysis

Equipment and Supplies needed for one lab user setup

- Straight-through Ethernet media
- Two computer with Microsoft Windows for local device management and client scenarios
- Two routers with integrated switches (Almost any hybrid router will work for Module 1 course)
 - Static routes capable
 - Dynamic routes capable
 - Preferably Tomato OS
- Cisco Packet Tracer for network simulations

Required Text:

ISBN: 978-1-4188-3705-1

Title: CCNA Guide to Cisco Networking Fundamentals - Fourth Edition

Zetron Module 2 – Network Integrations Course Syllabus**Course Title/Length****Network Integrations** (36 hours)**Course Description**

This course provides professionals with the knowledge and skills to configure and troubleshoot network infrastructures. Tasks will include installing, configuring, operating, and troubleshooting switched networks. You will gain an understanding of the current network technologies used in a Cisco IP-enabled network. During the course, skills in configuring Cisco routers, Cisco IOS Software management, routing protocol configuration, TCP/IP, access control lists (ACLs), and security appliances will be covered. Key topics include subnetting, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, firewalls, and implementing VLANs. This course is geared toward the Cisco CCENT, and CCNA industry certifications.

Course Learning Objectives

Participants will gain an understanding of data networks to:

- Network planning and design
- Network implementation
- LAN and WAN implementation and configurations for internetworking
- Router and Switch Internetworking Operating System (IOS)
- Network addressing
- Subnetting, Variable Length Subnet Masks (VLSMs), and Troubleshooting TCP/IP
- Managing a Cisco Internetwork
- IP Routing
- Packet analysis
- Device management with terminal sessions, telnet and security device manager
- Client network infrastructures
- Network services
- Routing and switching protocols including RIP, RIPv2
- Name resolution constructing
- Virtual LANs (VLANs)
- Spanning Tree Protocol

- Firewall security appliances

Knowledge areas covered

- Introduction to Cisco IOS
- Router Configuration (Management, Navigation)
- Routing Protocols (RIP, RIPv2)
- Switch Configuration (Management, VLANs, STP)
- Security ACLs and ACEs
- Logical and Physical Firewall Security

Entrance requirements

- Successful completion of Module 1 – Core Networking Essentials or an equivalent packet-switching network fundamentals course

Course cap: 14 participants

Required and Supplementary Student Materials

- Required texts:
 1. *ISBN: 978-0-470-90107-6*
Title: CCNA Cisco Certified Network Associate Study Guide, 7th Edition

Course Outline and Proposed Class Schedule

Unit 1: Introduction (4 hours)

- Introduction to routers
- Cisco IOS

Unit 2: Router Configuration (4 hours)

- Router Navigation
- Router Management

Unit 3: Dynamic Routing (6 hours)

- Cisco routing protocols for LAN and WAN topologies
- RIP
- RIPv2

Unit 4: Switch Configuration (6 hours)

- Introduction
- Management

- Configuration
- VLANs
- STP

Unit 5: Network Communications (8 hours)

- Introduction to Access Control Lists (ACLs)
- Standard ACLs
- Extended ACLs
- Named ACLs

Unit 6: Network Integration (4 hours)

- LAN and WAN topologies utilizing Cisco network equipment
- Switch configurations
- Router environments:
 - Ethernet LANs
 - Point-to-Point WANs/subnets
- Dynamic routing

Unit 7: Firewall Security Appliances (4 hours)

- Introduction
- Topologies
- Architecture
- Traffic Control
- Virtual Private Networks
- Advanced Features of Cisco Security
- ASA security appliance management

Equipment and Supplies needed for one lab user setup

- Straight-through Ethernet media
- Cisco rollover/console media
- Three smart serial media (recommended - v.35 female/male)
- Three computer with Microsoft Windows for local device management and client scenarios
- Three Cisco routers with WIC 2T and 1 FA interface
- Three Cisco switches (at least model 2950s)
- Cisco ASA 5505 Security Appliance
- Cisco ASA 5505 Security Plus License

Zetron Module 3 – Advanced Routing and Switching Course Syllabus**Course Title/Length****Network Integrations** (32 hours)**Course Description**

The technologies covered in this course focus on higher end Cisco skills for router and switching environments. Various protocols are covered throughout the course such as Multi-Protocol Label Switching and Quality of Service on networks. Network protocols for efficient data communication over interconnected switching environments will be introduced. These protocols include Spanning Tree Protocol and the later Rapid Spanning Tree Protocol. Other technologies covered in this course include RPVST for logical VLAN topologies. You will also learn the configuration and protocols necessary for single point management and redundancy with stacked switching infrastructures. NIC Teaming concepts will be introduced throughout the labs. The course will conclude by individuals experiencing real world network builds based on Zetron scenarios.

Course Learning Objectives

Participants will gain an understanding of data networks to:

- Network planning and design
- Network implementation
- LAN and WAN implementation and configurations for internetworking
- Router and Switch Internetworking Operating System (IOS)
- Network addressing
- Subnetting, Variable Length Subnet Masks (VLSMs), and Troubleshooting TCP/IP
- Managing a Cisco Internetwork
- IP Routing
- Packet analysis
- Device management with terminal sessions, telnet and security device manager
- Client network infrastructures
- Network services
- Routing protocols
- Network Redundancy protocols
- Transport protocols
- Service Protocols
- Switching Protocols
- Switch redundancy and scalability

- NIC teaming concepts

Knowledge areas covered

- Network Redundancy, Transport, and Service Protocols (HSRP, VRRP, MPLS, QoS)
- Switching Protocols (RSTP, PVST, PVRST+ (formally RPVST), QoS, VTP)
- Switch stacking
- Routing Protocols (IGRP, EIGRP, OSPF)
- NIC Teaming

Entrance requirements

- Successful completion of Module 2 – Network Integrations

Course cap: 14 participants

Required and Supplementary Student Materials

- Required texts:
 1. *ISBN: 978-0-470-90107-6*
Title: CCNA Cisco Certified Network Associate Study Guide, 7th Edition

Course Outline and Proposed Class Schedule

Unit 1: Network Redundancy, Transport, and Service Protocols (8 hours)

- HSRP
- VRRP
- MPLS
- QoS

Unit 2: Switching Protocols (8 hours)

- RSTP
- PVST and PVRST+
- QoS

Unit 3: Switch Topologies and Teaming (4 hours)

- VTP
- Stacking
- Teaming

Unit 4: Advanced Dynamic Routing (4 hours)

- IGRP

- EIGRP
- OSPF

Unit 4: Complete Integration (8 hours)

- This unit will combine all previous skills from Module courses 1-3
- Individuals will implement network models proprietary to Zetron services
- Design, configure, and troubleshoot network scenarios based on Zetron case studies

Equipment and Supplies needed for one lab user setup

- Straight-through Ethernet media
- Cisco rollover/console media
- Three smart serial media (recommended - v.35)
- Three computer with Microsoft Windows for local device management and client scenarios
- Four Cisco routers with WIC 2T and 1 FA interface
- Three Cisco switches (Cisco WS-C2960X-24TS-L)
- Stacking cables