

## October 2018 5XX NPA Exhaust Analysis

### **Introduction**

NANPA projects the exhaust of the 5XX NPA resource based upon the utilization and forecast data submitted by service providers via the NRUF process. The following assumptions were used in this exhaust analysis. The 5XX NPAs currently in service include the 500, 521, 522, 533, 544, 566, 577 and 588 codes.

### **October 2018 5XX Exhaust Projection Assumptions**

The following is a list of assumptions used in the development of the April 2018 5XX NPA exhaust projection prepared by NANPA.

1. The 5XX NPA exhaust study uses as its basis the NXX code forecasts submitted via the NRUF reporting process and historical NXX code assignment information. The five year total forecasted demand is used to calculate the number of 5XX NPAs that will be needed over the next five years. This demand is also used to forecast when the current quantity of assigned and reserved 5XX NPAs will exhaust.<sup>1</sup>
2. A new NPA will be required when the number of assigned and unassignable NXX codes reaches 800.
3. It is assumed that each new NPA will require the same number of unassignable codes as the current NPA.

### **Results based on Assumptions**

Using the October 2018 NRUF data, the aggregated forecasted demand for 5XX-NXXs for 2018 through 2022 ranges from 800 codes to 1,200 NXXs per year. This demand rate was compared to actual assignment data from 2010 through 2017.

<b>Year</b>	<b>Annual Gross 5XX NXX Code Demand</b>	<b>Annual Net 5XX NXX Code Demand</b>
2010	717	717
2011	757	707
2012	365	357
2013	341	330
2014	639	570
2015	658	630
2016	827	777
2017	781	700

This comparison shows the yearly forecasted demand starting in 2018 (800 NXXs) is in line with the actual demand experienced from 2016 and 2017.

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<sup>1</sup> The 5XX NPAs reserved for future expansion include the following: (523, 524, 525, 526, 527, 528, 529, 532, 538, 542, 543, 545, 547, 549, 552, 553, 554, 556, 569, 578, 589, 550, 535, 546 and 558).

To project the exhaust of the currently-assigned 5XX NPAs, an average annual demand of 1,000 5XX-NXX codes was used. This quantity is higher than 2017 demand and accounts for an increase in forecasted demand over the next five years. Using this demand rate, the projected 5XX exhaust date of the assigned 5XX NPAs is second half of 2018. Further, it is expected that seven new 5XX NPAs will be needed over the next five years.

In projecting the exhaust of the assigned and reserved 5XX NPAs (8 assigned 5XX NPAs and 25 reserved 5XX NPAs), an annual demand rate of 1,000 5XX-NXXs was used, resulting in the projected exhaust in 20 years. For comparison purposes, NANPA performed a sensitivity analysis using an average annual demand of 1,500 NXX codes, which represented a 50% increase in the base model demand. Using this annual demand, the projected exhaust of the 5XX resource is approximately 13 years.